



# **Bearing Nomenclature Guide**

Bearing Prefixes and Suffixes  
for Major Manufacturers



## Introduction

Welcome to the 2024 Edition of our Bearing Nomenclature Guide. We hope you find this guide to be helpful to quickly decipher nomenclature for most bearing manufacturers.

Please note that while we have done our due diligence to provide you with up-to-date bearing nomenclature this information is subject to change at any time. If you can't find what you're looking for contact one of our bearing specialists at 866-704-6832, email us at [sales@bdsbearing.com](mailto:sales@bdsbearing.com) or visit our website: [www.bdsbearing.com](http://www.bdsbearing.com)

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## American Roller Bearing

Suffix	Equal To
AD	Complete
A	Outer Only
D	Inner Only
X	Steel Cage
SM	Old Suffix for Steel Cage

### Standard Types

CD - AD	Double flanged outer race, straight inner race for applications where axial float is required. Roller assembly is inseparable from outer race.
CM - AM	Double flanged inner race, straight outer race for applications where axial float is required. Roller assembly is inseparable from inner race.
CE - AE	Double flanged outer race, single flanged inner race for applications where axial location in one direction is required. Roller assembly is inseparable from outer race.
CC - AC	Double flanged inner race, single flanged outer race for applications where axial location in one direction is required. Roller assembly is inseparable from inner race.
CDA - ADA	Double flanged outer race, single flanged inner race with plate for applications where axial location in both directions is required. Roller assembly is inseparable from outer race.
CDD - ADD	Double flanged inner race, single flanged outer race with plate for applications where axial location in both directions is required. Roller assembly is inseparable from inner race.
A	Straight inner and outer races for applications where axial float is required. Roller assembly is separable from both races, and mounting design should incorporate a means for its retention.
AD	Triple flanged outer race, straight inner race, double row bearing for applications where axial float is required. Roller assembly is inseparable from outer race. (4900, 7000 (-40), and 7100 (-31) Series only.)
AM	Triple flanged inner race, straight outer race, double row bearing for applications where axial float is required. Roller assembly is inseparable from inner race. (4900, 7000 (-40), and 7100 (-31) Series only.)
ADD	Triple flanged inner race, two single flanged outer races for this double row bearing where axial location in both directions is required. (4900, 7000 (-40), and 7100 (-31) Series only.)



## American Roller Bearing

### Miscellaneous Types

CK – AK	Double flanged outer race, straight inner race with plate for applications where axial location in one direction is required. Roller assembly is inseparable from outer race.
CJ – AJ	Single flanged outer race with plate, straight inner race for applications where axial float is desired. Bearing is fully separable.
CN – AN	Single flanged outer race with plate, single flanged inner race for applications where axial location in one direction is required. Bearing is fully separable.
CL – AL	Single flanged outer race, single flanged inner race. Bearing is fully separable.
CDP – ADP	Single flanged outer race with plate, single flanged inner race with plate for applications where axial location in both directions is required. Bearing is fully separable.
CCP – ACP	Straight outer race, single flanged inner race with plate for applications where axial float is required. Bearing is fully separable.
CM...X – AM...X	Double flanged inner race, outer race is grooved for hardened snap rings. This bearing is not recommended to take thrust. The snap rings allow the housing to be made without any axial retention features. Bearing is non-separable.
CZ – AZ	Identical inner and outer race construction as the former, except this is a full complement bearing with no cage.
CE...X – AE...X	Double flanged inner race, single flanged outer race with snap ring for those applications where axial location in one direction is required. Bearing is Non-separable.
CMZ – AMZ	Identical inner and outer race construction as the former except this is a full complement bearing with no cage.
CDL – ADL	Double flanged inner and outer races for applications where axial location in both directions is required. Bearing is non-separable.

<b>Domestic</b>	CD AD	CM AM	CE AE	CC AC	CDD ADD	CDA ADA	A	-	-
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Equal To

<b>European</b>	NU	N	NJ	NF	NP	NUP	-	NNU	NN
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## Asahi

### Dimension Table Index

Type of Housing	Material of Housing	Series No.
Pillow Block	Cast Iron	UCP 200, UCP X00, UCP 300, UKP 200+H, UCLP 200, FGAK 200, BLLP
Pillow Block	Malleable Cast	BPW 200, FHPW 200
Pillow Block	Pressed Steel	BPP, BPR, FHPR 200
Square Flange	Cast Iron	UCF 200, UCF X00, UCF 300, UCLF 200, FGSFL 200
Three-Bolt Flange	Pressed Steel	BPF, BPFT
Flange Cartridge	Cast Iron	UCFC 200, UCFC X00
Two-Bolt Flange	Cast Iron	UCFL 200, UCFL X00, UCFT 200, FGFJT 200, BLFL
Two-Bolt Flange	Malleable Cast	BFX 200, FHFX 200
Two-Bolt Flange	Pressed Steel	BPFL
Take-Up	Cast Iron	UCT 200, UCT X00, UCST 200
Take-Up with Frame	Cast Iron	UCT 200+WB
Hanger Bearing	Cast Iron	UCECH 200

Type of Housing	Locking Method	Series No.
Ball Bearings	Set-Screw	UC 200
Ball Bearings	Set-Screw	UC X00
Ball Bearings	Adapter Sleeve	UK 200+H
Ball Bearings	Set-Screw	B
Ball Bearings	Set-Screw	SER 200
Ball Bearings	Eccentric Locking Collar	FG 200+ER
Ball Bearings	Eccentric Locking Collar	FH 200+ER
Ball Bearings	Eccentric Locking Collar	FHR 200+ER
Ball Bearings	Press Fitting	W 200
Ball Bearings	Cast Iron	UCT 200+WB
Ball Bearings	Cast Iron	UCECH 200



## Aurora

### Commercial/Industrial Units

Rod Ends	
CM, CB	Male 2 pc. Economy
CW, CG	Female 2 pc. Economy
VCM, VCB	Male Economy PTFE Lined
VCW, VCG	Female Economy PTFE Lined
CM-M, CB-M	Male 2 pc. Metric Economy
CW-M, CG-M	Female 2 pc. Metric Economy
MM-M, MB-M	Male 3 pc. Metric Precision
MW-M, MG-M	Female 3 pc. Metric Precision
MM, MB	Male 3 pc. Precision
MW, MG	Female 3 pc. Precision
MM-T, MB-T	Male 3 pc. PTFE Lined
MW-T, MG-T	Female 3 pc. PTFE Lined
KM, KB	Male 3 pc. Wear Resistant
KW, KG	Female 3 pc. Wear Resistant
AM, AB	Male 3 pc. High Strength
AW, AG	Female 3 pc. High Strength
CM-ET, CB-ET	Male Corrosion Resistant
CW-ET, CG-ET	Female corrosion Resistant
SM, SB	Male 3 pc. Corrosion Resistant
SW, SG	Female 3 pc. Corrosion Resistant
CM-S, CB-S	Male 3 pc. Economy w/Stud
CW-S, CG-S	Female 2 pc. Economy w/Stud
Spherical Bearings	
COM, HCOM	Standard Series
AIB, SIB, MIB, MIB-T	Standard Series
Suggested Housing Bores	Standard Series

### Military Specification Units

CL, CL-S	Rod End Linkages
HB	Ball Bearing Rod Ends

### Performance Racing Units

Rod Ends	
XM, XB	Male 3 pc. Extra Strength
XAM, XAB	Male 3 pc. High Strength Alloy
PRM-T, PRXM-T	Male 3 pc. High Strength PTFE Lined
RAM, RAB	Male 3 pc. High Strength Bright Polished
RXAM, RXAB	Male 3 pc. High Strength Bright Polished
HXAM-T, HXAB-T	Male 3 pc. High Strength Misalignment PTFE Lined
ALM, ALB	Male 3 pc. Aluminum Body
XALM, XALB	Male 3 pc. Aluminum Body
Spherical Bearings	
PNB-T, PNB-TG	High Performance Narrow PTFE Lined
PWB-T, PWB-TG	High Performance Wide PTFE Lined
HAB-T	High Misalignment PTFE Lined

### Military Specification Units

Rod Ends	
ASM-T, ASB-T	Male High Strength PTFE Lined
ASW-T, ASG-T	Female High Strength PTFE Lined
Spherical Bearings	
ANC-T, ANC-TG	Narrow PTFE Lined
AWC-TG, AWC-T	Wide PTFE Lined
Rod Ends	
GMM, GMB	Male General Aviation
GMW, GMG	Female General Aviation



## Barden

### Duplexing and Preloads

Letter symbol indicates type of duplex mounting. If followed by number, numerals, indicate mean preload in pounds. Lack of number indicates standard preload.

D- Universal duplex mounting. Duplex with Universal configuration are ground with inner and outer rings having the same width and can be installed DB, DF, or DT.

DB – Back-to-back mounting.

DF – Face-to-face mounting.

DT – Tandem mounting.

DD – Tandem Triplex Set.

DBT – Back-to-back pair plus one Single bearing in tandem.

Standard preloads for angular contact “H” type are light, medium and heavy, Denoted by: L: Light M: Medium H: Heavy

### Radial Runout

Only special radial runouts are shown in bearing number and are identified by letter “E”.

E – Radial runout less than standard tolerances.

When “E” is followed by letter “R”, high point of eccentricity is marked on bearing according to the following code:

R – Inner ring marked for high point of eccentricity.

R1 – Outer ring marked for high point of eccentricity.

R2 – Both inner and outer rings marked for high points of eccentricity.

### Lubrication

Type of lubricant used is always indicated in bearing number on packaging. Letter “O” denotes oil, letter “G” denotes grease. Number codes following letters indicate type of lubricant. Lubricants frequently used are:

#### Oils:

O-9 – Exxon Aviation Instrument Oil

O-11 – Winsorlube L-245X

O-14 – Exxon 2389 Turbo Oil

O-40 – Exxon Coray 100

#### Greases:

G-2 – Exxon Beacon 325

G-6 – Exxon Andok C

G-18 – Nye Rheotemp 500

G-29 – Exxon Andok 260

G-33 – Mobil Grease #28

G-42 – Nye Rheolube 350-SBG-2

G-46 – Kluber ISOFLEX NBU-15

### Radial Play

Numeral indicates range play for deep groove bearings. On angular contact bearings, no code is shown for standard contact angles.

Note: Radial play code number is preceded by letter “K” when previous section of bearing number ends in a number. Letter “K” functions only as a separating symbol to avoid confusion.





## Barden

### Functional Test

Most miniature and instrument bearings are available with low Torque characteristics. Variations in torque levels are designated by the following symbols:

V – Guaranteed low maximum torque level.

VK – Very low starting torque.

VM – Very low running torque.

VT – Actual torque trace furnished with each VM level bearing. Consult Barden for specific torque levels.

VL – Prior designation for guaranteed very low maximum torque levels.

### Calibration

Bearing with calibrated bore or O.D. is denoted by letter “C”. Coding used is as follows:

C – Bore and O.D. tolerance range separated into increments of .0001” and group indicated on packaging.

COX – Calibration of O.D. only.

C44 – Grouping of .00005”, bore and O.D.

C40 – Bore only calibrated in groups of .000050”.

C04 – O.D. only calibrated in groups of .000050”.

CXO – Calibration of bore only.



## BCA

## Basic Bearing Series

Type	Description
"R"	Single Row-Extra Light Inch Series-Conrad
30	Single Row-Extra Small Metric Series-Conrad
100	Single Row-Extra Light Metric Series-Conrad
200	Single Row-Light Metric Series-Conrad
300	Single Row-Medium Metric Series-Conrad
400	Single Row-Heavy Metric Series-Conrad
1200	Single Row-Light Metric Series-Maximum Capacity
1300	Single Row-Medium Metric Series-Maximum Capacity
1400	Single Row-Heavy Metric Series-Maximum Capacity
5200	Double Row-Light Metric Series
5300	Double Row-Medium Metric Series
5400	Double Row-Heavy Metric Series
XLS	Single Row-Extra Light Inch Series-Conrad
7100	Single Row-Extra Light Metric Series-Angular Contact
7200	Single Row-Light Metric Series-Angular Contact
7300	Single Row-Medium Metric Series-Angular Contact
9000	Single Row-Metric Series Split Inner Ring Angular Contact

## Bearing Bore Size

The last two digits of a metric bearing number indicates the bearing bore. The bearing bore in millimeters for sizes 04 and up can be determined by multiplying the last two digits by (5).

Type	Size
0	10mm
1	12mm
2	15mm
3	17mm
4	20mm
5	25mm
10	50mm
15	75mm
20	100mm



## BCA

## Prefix And Suffix Explanations

A, B, E, H, J, K, Q, U, W And Numerical Suffix Represent Specialty Bearings With Non-standard Dimensions/Features

Prefix	Suffix	Explanation
A-		Idler pulley bearing, shell style attachment
	-A	25° angle of contact with angular contact series
	-AC	Locking collar plus aligning ring for heavy series adapters.
	-AR	Special inner and outer ring corners, wedding ring supplied with rear wheel types.
B-		Front wheel ball bearing assembly.
B-		Variation in carrier on clutch release types.
	-B	35° angle of contact with angular contact series.
	-BBAR	Two narrow single lip “non-removable” land riding seals, special dimensions.
C,CA,CC-		Variations in carrier on clutch release types.
CB-		Conveyor bearing, hex bore.
	-C	Eccentric locking collar on adapter types.
	-C	Rubber seal lip bonded to sheet metal insert.
	-CC1	Two piece “non-removable” wiping seal on both sides of bearing, special 5/8” bore.
	-CC16	Two piece “non-removable” wiping seal on both
		sides of bearing, special 16mm bore.
CF-		Cam follower bearing.
CG-		Chain guide bearing.
CL-		Variation in carrier on clutch release types.
	-CCRA	Two piece “non-removable” wiping seal on both sides of bearing, wedding ring supplied with rear wheel types.
D-		Inner and outer rings flush ground on both sides for tandem mounting.



## BCA

## Prefix And Suffix Explanations

Prefix	Suffix	Explanation
DA,DB,DC, DD,DT-		Variation in carrier on clutch release types.
DC-		Disc harrow type, cylindrical O.D.
	-D	Double lip “non-removable” molded seal.
DS-		Disc harrow type, spherical O.D.
E-		Magneto bearing.
	-E	Carburized race for adapter types.
F-		Idler pulley shell style-flat.
	-F	Molded single lip removable seal.
	-F	Special feature on clutch release types.
F,FA,FB FC,FD,FE-		Variation in carrier on clutch release types.
FD-		Flanged disc bearing assembly.
	-FFA	Single slip “snap-in” seal on both sides, special $\frac{3}{4}$ bore.
	-FFLB	Special bearing, two single lip “snap-in” seals, snap ring supplied.
	-FGB	Wide single lip seal on extended inner ring, single lip “snap-in” seal on opposite side, special bearing.
FL,FN-		Variation in carrier on clutch release types.
FNR-		Four bolt cast iron flange, narrow adapter bearing, narrow single lip “non-removable” land riding seal with eccentric locking collar.
FPB-		Flanged, stamped steel pillow block.
FT-		Variation in carrier on clutch release types.
	-FVB	Single lip “snap-in” seal, wide double lip “non-removable” land riding seal with special bearing dimensions.



## Prefix And Suffix Explanations

Prefix	Suffix	Explanation
FWG-		Four bolt cast iron flange, wide adapter bearing, wide single lip “non-removable land riding seals with eccentric locking collar.
FWRH-		Four bolt cast iron flange, wide inner ring with PTFE seals, Heavy series with eccentric locking collar.
FWT-		Four bolt cast iron flange, wide adapter bearing, triple lip “non-removable” land riding seals with eccentric locking collar.
FWV-		Four bolt cast iron flange, wide adapter bearing, wide double lip “non-removable” land riding seals with eccentric locking collar.
F2L-		Flat idler pulley, narrow width, prelubricated.
F5L-		Flat idler pulley, high speed series “5”, prelubricated.
G-		Relubricatable stamped flange.
	-G	Keyway on inner or outer ring.
	-G	Wide single lip “non-removable” land riding seal.
G-GM-		Variation in carrier on clutch release types.
	-GGB	Two wide single lip “non-removable” land riding seals, spherical O.D., 1-1/8 bore.
	-GGH	Two wide single lip “non-removable” land riding seals, ¾ bore.
	-GP2C	Wide single lip “non-removable” land riding seals, prelubricated, special bore, with eccentric locking collar.
	-GR2C	Wide single lip “non-removable” land riding seal, relubricatable, special bore, with eccentric locking collar.
	-H	Special snap ring on radial bearings.
	-H	Idler pulley shell style-hard.
HB-		Hanger bearing.
HBD-		Hanger bearing, special feature.
HC-		Hydraulic clutch bearing assembly.



## BCA

## Prefix And Suffix Explanations

Prefix	Suffix	Explanation
HEC-		Hex bore, economy, cylindrical O.D. Adapter.
HPC-		Hex bore, precision ground cylindrical O.D. Adapter.
HPS-		Hex bore, precision ground spherical O.D. Adapter.
I,IA,IC-		Variation in carrier on clutch release types.
	-J	40° Angle of contact with angular contact types.
	-K	Wheel bearing kit consisting of axle nut, washer, and seal.
	-K	Double row bearing with vertex of contact angles outside the bearing. Conrad type, nylon retainer.
	-K	"Gothic arch" on 9000 series.
	-KE	Double row bearing with vertex of contact angles outside the bearings, steel retainer, Conrad type.
	-KM	Gothic arch angular contact with snap ring and bronze retainer.
L-		Idler pulley, prelubricated.
	-L	Snap ring grooved outer, snap ring supplied.
	-LA	Snap ring groove on opposite side from standard. Snap ring not supplied.
	-LH	Left hand thread.
	-LO	Snap ring groove on standard side. Snap ring not supplied.
	-LOE	Snap ring groove on standard side, special features, snap ring not supplied.
LS-		Light series, inch type.
	-LV	Snap ring groove on opposite side from standard. Snap ring supplied.
	-LX	Special bore corners.
	-M	Machined bronze retainer.
M-MC		Variation on carrier on clutch release types.



## BCA

## Prefix And Suffix Explanations

Prefix	Suffix	Explanation
MC-		Master cylinder.
MG-		Mast Guide bearing.
MS-		Medium Series, inch type.
	-MS	Stamped metal flange.
	-MSA	Metal stamping combined with relubricating flange.
	-MST	Metal stamping two hole flange.
	-MSTR	Metal stamping three hole triangular flange.
N,NH-		Variation in carrier on clutch release types.
N-		Bearing inner and outer ring narrower than standard.
	-N	Glass fiber reinforced nylon retainer.
	-N	15° angle of contact with angular contact series.
NIR-		Narrow inner ring.
NOR-		Narrow outer ring.
NPC-		Narrow adapter bearing, precision ground, with cylindrical O.D. and eccentric locking collar.
NPS-		narrow adapter bearing, with spherical O.D. and eccentric locking collar.
O-		Variation in carrier on clutch release types.
P-		Idler pulley.
P-		Precision ground.
P-PE-		Variation in carrier on clutch release types.
	-P	Prelubricated.
PA-		Idler pulley-attachment type.
PG-		Idler pulley-general purpose.



## Prefix And Suffix Explanations

Prefix	Suffix	Explanation
PHV-		Cast iron pillow block, hex bore bearing, with wide double lip “non-removable” land riding seals with eccentric locking collar.
PNR-		Cast iron pillow block, narrow adapter bearing, with narrow single lip “non-removable” land riding seals with eccentric locking collar.
PR-		Plunger roller bearing.
PS-		Idler pulley- sprocket type
PT-		Variation in carrier on clutch release types.
PT-		Variation in carrier on clutch release types.
PV-		Idler pulley- for “Vee” belt.
PWG-		Cast iron pillow block, wide adapter bearing, with wide single lip “non-removable” land riding seals with eccentric locking collar.
PWOL-		Ductile iron pillow block, wide adapter bearing, oil lubricated, heavy series.
PWRH-		Ductile iron pillow block, wide adapter bearing, PTFE seal, Heavy series with eccentric locking collar.
PWT-		Cast iron pillow block, wide adapter bearing, with wide triple lip “non-removable” land riding seals with eccentric locking collar.
PWV-		Cast iron pillow block, wide adapter bearing with wide double lip “non-removable” land riding seals with eccentric locking collar.
R-		Extra light inch series.
R-		Variation in carrier on clutch release types.
	-R	Narrow single lip “non-removable land riding seal.
	-R	Relubricatable. Adapter and pillow block types.
	-R	Wedding ring supplied with rear wheel types.
	-R	Special feature in clutch release types.
RA,RB-		Variation in carrier on clutch release types.





## BCA

## Prefix And Suffix Explanations

Prefix	Suffix	Explanation
	-RH	Right hand thread.
	-RM	Relubricatable, M= Non-significant
	-RPC	Narrow single lip “non-removable” land riding seal, prelubricated, with eccentric locking collar.
	-RP2C	Narrow single lip “non-removable” land riding seal, prelubricated, special I.D. With eccentric locking collar.
	-RS	High center-line on pillow block types.
	-RUAN	Narrow single lip “non-removable” land riding seal and double lip “non-removable” land riding seal, special bearing dimensions.
RW-	-AG-GR	Rear wheel bearing with variation of basic design.
RWC, RWF, RWP-		Rear wheel bearing with variation of basic design.
S-		Idler pulley shell style- sprocket type.
S-		Variation on carrier on clutch release types.
S-		Bearing outer ring with spherical O.D.
	-S	Steel shield on one side of bearing (with max. type bearings, shield opposite loading slot.)
	-S	Idler pulley-soft shell.
SAFNR-		Four bolt cast iron flange, narrow adapter bearing with Narrow adapter bearing with narrow single lip seal. Set screw inner ring.
SATNR-		Two-bolt cast iron flange, narrow adapter bearing with narrow single lip seal. Set screw inner ring.
	-SC	Stoned corner on mounting washer. Carrier is supplied with bearing. Clutch release types.
	-SL	Snap ring groove on side of bearing opposite shield.
		Snap ring supplied.
	-SLA	Snap ring groove on same side of bearing as shield. Snap ring not supplied.



## Prefix And Suffix Explanations

Prefix	Suffix	Explanation
	-SLB	Snap ring groove on side of bearing opposite shield.Snap ring supplied. Shield mounted on O.D. Of inner ring.
	-SLO	Snap ring groove on side of bearing opposite shield. Snap ring not supplied.
	-SLV	Snap ring groove on same side of bearing as shield. Snap ring supplied.
	-SLVB	Snap ring groove on side of bearing opposite shield, shield mounted on O.D. Of inner ring.
SNPS-		Set screw inner ring, narrow adapter, precision ground with spherical O.D.
SPB-		Stamped steel pillow block.
SPNR-		Set screw inner ring, cast iron pillow block, narrow adapter bearing with narrow single lip seal.
	-SV	Steel shield on opposite side from standard.
SWPS-		Wide set screw adapter bearing.
S2L-		Sprocket idler pulley, narrow width, prelubricated.
S6L-		Sprocket idler pulley, high speed series, prelubricated.
T-		Variation in carrier in clutch release types.
	-T	30° Angle of contact with angular contact types.
	-T	Wide triple lip “non-removable” land riding seal on adapter type.
TA-		Variation in carrier on clutch release types.
TB-		Tine bar bearing.
	-TNJ	Extended inner ring, triple lip seal, nylon retainer.
TNR-		Two-hole cast iron flange, narrow adapter bearing, narrow single lip “non-removable” land riding seal with eccentric locking collar.
TWG-		Two hole cast iron flange, wide adapter bearing, with wide single lip “non-removable” land riding seal with eccentric locking collar.



## BCA

## Prefix And Suffix Explanations

Prefix	Suffix	Explanation
TWT-		Two hole cast iron flange, wide adapter bearing, with triple lip “non-removable” land riding seal with eccentric locking collar.
TWV-		Two hole cast iron flange, wide adapter bearing, with double lip “non-removable” land riding seal with eccentric locking collar.
V-		Idler pulley “VEE” type.
V-		Variation in carrier on clutch release types.
	-V	Wide double lip “non-removable” land riding seal.
	-VV	High temperature seal on both sides with clutch pilot types.
VW-		Variation in carrier on clutch release types.
V2L-		“V” type idler pulley, narrow width, prelubricated.
V5L-		“V” type idler pulley, high speed series, prelubricated.
W-		Bearing inner and outer ring wider than standard.
W-		Variation in carrier on clutch release types.
	-W	Double row bearing with vertex of contact angles inside the bearing. Maximum capacity.
WA, WB-		Variation in carrier on clutch release types.
WC-		Wide conic type bearing.
WIR-		Wide inner ring bearing.
WOR-		Wide outer ring bearing.
WPC-		Wide inner ring bearing, cylindrical O.D. Adapter bearing, with eccentric locking collar.
WPCH-		Wide inner ring, cylindrical O.D. Heavy series adapter bearing, with eccentric locking collar.
WPS-		Wide inner ring bearing, spherical O.D. Adapter bearing, with eccentric locking collar.
WPSH-		Wide inner ring, spherical O.D. Heavy series adapter bearing, with eccentric locking collar.



## BCA

## Prefix And Suffix Explanations

Prefix	Suffix	Explanation
	-WS	Double row bearing with vertex of contact angles inside the bearing. Maximum capacity. Shield on one side of bearing opposite loading slot.
	-WSL	Double row bearing with vertex of contact angles inside the bearing. Maximum capacity. Snap ring groove on side of bearing opposite shield. Snap ring supplied.
X,XC-		Variation in clutch release type.
	-X	Class O (Standard) fit for double row bearings.
	-X	Is used to separate the basic bearing number from the numeric suffix.
XLS-		Extra light inch series .
Y-		Variation in carrier on clutch release types.
	-Y	Single lip “non-removable” molded seal.
	-1	Modification of original design.
	-2	Less internal clearance than standard.
	-2	Special I.D.
	-3	Greater internal clearance than standard.
	-4	Greater internal clearance than class 3 loose.
	-O5	Special housing, clutch release types.
	-18	Grease notch in bearing washer. Clutch release types.
	-22	Extra part number.
	-28	Grease notch in bearing washer. Clutch release types.
	-31	Grease fitting on O.D. Of bearing housing. Clutch release types.
	-32	Clutch release types.
	-35	Extra part number.
	-43	Grease notch in bearing washer, extra part number.



## Bower

## OLD SYSTEM for Tapered Roller Bearings

\*These letters not effective at present time.

Prefix	Suffix	Part Type	Explanation
A-		Cup & Cone	Applies to certain series and their cone and cup numbers. A4000, A4057, A6000, A6157, etc.
	-A	Cage	Type A Steering Gear Bearing Cage. 5A, 11A, etc. Superseded by type BA.
	-A	Cone & Cup	Extra part number. 6A, 359-A, 15250-A, etc.
	-AB	Cup	Extra part number, flanged cup.
	-AC	Cup	Extra part number.
	-AD	Cup	Double Cup.
	-AS	Cup & Cone	Extra part number.
	-AW	Cone	Slotted or Keyway Cone.
	-AX	Cup & Cone	Extra part number, lapped front face.
	-B	Cup	Flanged cup.
	-B	Cone	Brass retainer.
	-BA	Cage	Type BA Steering Gear Bearing Cage. 5BA, 11BA, etc. (Conical Head rollers.)
	-BC	Cage	Type BC Steering Gear Bearing Cage. 5BC, 11BC, etc. (Flat head rollers.) Note: Types BC and BA are not interchangeable.
	-BS	Cup	Flanged cup.
	-BW	Cup	Flanged cup with slot or keyway.
	-BX	Cup	Flanged cup.
	-C	Cup & Cone	Extra part number. 453-C.
	-C	Cage	Type C Steering Gear Bearing Cage. 5C, 11C, etc. Superseded by type BC.
	-CA	Cone	Relief groove in backface or extra part number. 4CA.
	-CB	Cone	Relief groove in front face or extra part number. 4CB.
	-CC	Cone	Relief groove in both faces.

**Bower****OLD SYSTEM for Tapered Roller Bearings**

Prefix	Suffix	Part Type	Explanation
	-CE	Cup	Extra part number. 6CE, 14CE.
	-CP	Cone & Cup	Chrome plated cone or cup.
	-CS	Cone & Cup	Extra part number. 13CS, 394-CS.
	-D	Cone	Double cone.
	-D	Cup	Double Cup.
	-DA	Cone	Extra part number.
	-DB	Cup	Flanged double cup.
	-DD	Cone	Extra long double cone.
	-DE*	Cone	Double Cup.
	-DS*	Cup	Double cup with crowned O.D.
	-DW	Cone	Slot or keyway in double cone.
	-DW	Cup	Slot or keyway in double cup.
	-E	Cone & Cup	Extra part number.
	-ED	Cup	Double Cup.
EE-		Cone	Special cone design. Not to be interchanged with part it super-sedes.
	-F	Cone	Extra part number.
H-		Cup & Cone	Heavy.
HH-		Cup & Cone	Heavier than heavy.
HM-		Cup & Cone	Heavy medium.
JL-		Cup & Cone	Light series made to metric dimensions.
JM-		Cup & Cone	Medium series made to metric dimensions.
JLM-		Cup & Cone	Light medium series made to metric dimensions.
JHM-		Cup & Cone	Heavy medium series made to metric dimensions.
KA-		Cup & Cone	Separable bearing with rollers assembled with the inner race.
KB-		Cup & Cone	Separable bearing with rollers assembled with the inner race.

**Bower****OLD SYSTEM for Tapered Roller Bearings**

Prefix	Suffix	Part Type	Explanation
KC-		Cup & Cone	Separable bearing with rollers assembled with the inner race.
KD-		Cup & Cone	Separable bearing with rollers assembled with the inner race.
KR-		Cup & Cone	Separable bearing with rollers assembled with the inner race.
L-		Cup & Cone	Light.
LL-		Cup & Cone	Lighter than light.
LM-		Cup & Cone	Light medium.
M-		Cup & Cone	Medium.
NA-		Cone	Factory adjusted cone (Two used with D cup).
	-NX	Cone	Lapped front face.
	-R	Cone & Cup	Extra part number. Special radius. 415-R, 3420-R.
	-RB	Cup	Snap ring groove in O.D.
	-S	Cone	Slotted or keyway cone.
	-S	Cone & Cup	Extra part number.
	-SA	Cup & Cone	Extra part number.
	-SB	Cup	Flanged cup.
	-SD	Cup	Double Cup.
	-SP	Cup	Extra part number.
	-SR	Cone & Cup	Extra part number.
	-SW	Cone	Slotted or keyway cone.
	-SX	Cone & Cup	Extra part number.
	-T	Cone	Tapered bore.
	-T*	Cup	Tapered O.D.
	-TD*	Cone	Double cone with tapered bore.
	-U*	Cone	Special undersize bore.
	-W	Cone & Cup	Slot or keyway in cone or cup.



## Bower

### OLD SYSTEM for Tapered Roller Bearings

Prefix	Suffix	Part Type	Explanation
X-		Cone & Cup	Experimental part.
	-X	Cone	Slotted or keyway cone.
	-X	Cup & Cone	Extra part number.
	-XA	Cup	Extra part number.
XC-		Cone	Extra part number.
	-XD*	Cone	Double cone.
	-XL	Cup & Cone	Dual face seals.
	-XS	Cup	Cup spacer.
	-XS	Cup	Extra part number.
	-XW	Cone	Slotted or keyway cone.
	-Y	Cup	Oil holes in O.D.
	-YK	Cup & Cone	Separable outer race.
	-Z	Cup & Cone	Separable outer race.

### NEW SYSTEM for Tapered Roller Bearings

\*These letters not effective at present time.

Prefix	Suffix	Part Type	Explanation
EL-		Cone & Cup	Extra Light.
LL-		Cone & Cup	Lighter than light.
L-		Cone & Cup	Light.
LM-		Cone & Cup	Light medium.
M-		Cone & Cup	Medium.
HM-		Cone & Cup	Heavy medium.
H-		Cone & Cup	Heavy.
HH-		Cone & Cup	Heavier than heavy.





## Bower

## NEW SYSTEM for Tapered Roller Bearings

Prefix	Suffix	Part Type	Explanation
EH-		Cone & Cup	Extra heavy.
	-A	Cup & Cone	Bearing width closer than standard.
	-B	Cup	Flanged cup.
	-BR	Cone & Cup	Cone or cup with snap ring.
	-BW	Cup	Flanged cup with slot or keyway.
	-CP	Cone & Cup	Chrome plated cone and cup.
	-D	Cone	Double cone.
	-D	Cup	Double cup.
	-DA*	Cup	Double cup-spherical O.D. -self aligning.
	-DB	Cup	Flanged double cup.
	-DD	Cone	Extra long double cone.
	-DD	Cup	Extra long double cup.
	-DE*	Cone	Double cone.
	-DE	Cup	Double cup
	-DS*	Cup	Double cup with crowned O.D.
	-DW	Cone	Slot or keyway in double cone.
	-DW	Cup	Slot or keyway in double cup.
	-DX*	Cup	Outer ring for self-aligning DA cup.
	-EA	Spacer	Cup spacer (standard).
	-EB	Spacer	Additional cup spacer.
	-EC	Spacer	Additional cup spacer.
	-ED	Spacer	Additional cup spacer.
	-NA	Cone	Factory adjusted cone (Two used with D cup)
	-NC*	Cup	Cushioned cup.
	-NW	Cone	Factory adjusted cone with slotted front face. (Two used with D cup.)

**Bower****NEW SYSTEM for Tapered Roller Bearings**

Prefix	Suffix	Part Type	Explanation
	-X	Cone & Cup	Extra part number.
	-XA	Spacer	Cone spacer (standard).
	-XB	Spacer	Additional cone spacer.
	-XC	Spacer	Additional cone spacer.
	-XD	Spacer	Additional cone spacer.
	-T	Cone & Cup	Tapered cone bore or tapered cup O.D.
	-TD*	Cone & Cup	Tapered bore double cone or tapered O.D. Double cup.
	-W	Cone	Two angular slots on cone back face.
	-WA	Cone	Single angular slot on cone back face.
	-WB	Cone	Two straight slots on cone back face.
	-WC	Cone	Full length slot (keyway) thru cone bore.
	-WD	Cone	Special slot or keyway.

**Cylindrical Roller Bearings - Numbering System-Prefix Letters**

Position of Letter In Prefix of Part Number				Applies to Complete Bearing Assembly
1st	2nd	3rd	4th	Explanation
	A			Plain cylindrical inner race.
	B	B		Special features, bore, radius, width, etc.
		C		Special features, bore, radius, width, etc. (Applies to “Mas Pak” Series)
	E			Plain cylindrical inner race, narrower than standard.
		E		Inner ring bore 10mm undersize. (Applies to “Max-Pak Series”)
		G		Inner ring bore 20mm undersize. (Applies to “Max-Pak” Series)
		J		See OJ.
			L	Inner race plate. Used with MSB type inner race.
M				Standard metric series.



## Bower

### Cylindrical Roller Bearings - Numbering System-Prefix Letters

1st	2nd	3rd	4th	Explanation
	N	N		Inner race plate. Used with MS or ME type inner race.
	O	J		Inner race & outer race removed. Cage pilots.
R				Special Series. A Non-AFBMA standard.
	R			Single flange cylindrical inner race.
		R		Special bore radius both ends.
			R*	Bore radius on opposite side of flange.
	S			Short single flange cylindrical inner race.
		S		5 or 10mm smaller bore.
T				Special series. A non-AFBMA standard.
		T	T*	5 or 10mm smaller bore.
	U			Double flange cylindrical inner race.
		U		Special features, small bore etc.
W				High capacity bearing- Max-Pak."
	W			Special conveyor wheel bearing.
		X		Special features.
		Y*		Single flange cylindrical inner race with retaining ring in OD (non-separable type)
		5		Double width inner race (5000, 5200 & 5300 series)

### Cylindrical Roller Bearings - Numbering System-Suffix Letters

Position of Letter in Suffix of Part Number				Applies to Complete Bearing Assembly
1st	2nd	3rd	4th	Explanation
	A	A		Oversize O.D. for heavy press fit in standard housing bore.
B				Plain cylindrical outer race, counter bore in I.D. both ends, special features.
	B	B		Special features.



## Bower

## Cylindrical Roller Bearings - Numbering System-Suffix Letters

1st	2nd	3rd	4th	Explanation
C	C			Plain cylindrical outer race. Appears in second position if preceded by letter "G".
	C			Overside I.D., small identification groove in O.D.
D	D			Single flange cylindrical outer race. Appears in second position if preceded by letter "G".
	D	D		Special features.
E	E			Double flange cylindrical outer race. Appears in second position if preceded by letter "G".
F	F	F		Fibron cage. New designation.
G				Standard snap ring groove in O.D.
	G			Snap ring groove in center of O.D.
	G			Snap ring groove in O.D. side. (Applies to "Max-Pak").
	H	H		Blind hole in O.D. oversize I.D., width etc.
	H	H		Blind hole in O.D. Center. (Applies to "Max-Pak").
		H		Blind hole in O.D.
J	J	J		One piece machined bronze cage.
L	L	L	L	Riveted steel cage. Flange guided.
	M	M		Full complement bearing, no cage.
N	N	N		Outer race plate, used with M-S type outer race.
	O			Oversize O.D. & I.D., identification groove on O.D.
	R			Aligning ring for "K" or "P" type outer race.
	R			Special O.D. Radius.
			R	Snap ring assembled on outer race O.D. ("R" could also be located in the 5th position)
S				Short single flange cylindrical outer race.
T				Plain cylindrical outer race, two snap rings in I.D. for roller retainment.
	T	T		Close tolerance on dimension, "from end of roller to face of inner race."



## Bower

### Cylindrical Roller Bearings - Numbering System-Suffix Letters

1st	2nd	3rd	4th	Explanation
U				Single flange cylindrical outer race, one snap ring in I.D. For roller retainment.
V	V	V	V	One piece pressed steel cage.
W				Non AFBMA standard.
	W			Special width outer race plate. Used with M-S type outer race.
		W		Special width outer race.
X		X	X	Riveted steel cage. Roll guided. (Applies to "Max-Pak:).
		X	X	Special width outer race plate. Used with M-S type outer race.
	1			Deviation in original design.

### Significance of Bower Numerals

The following is an explanation of the numbers used to Identify the series and dimensions of Bower cylindrical roller bearings.

- (a) Four digits are used by Bower to indicate the series (a) Four digits are used by Bower to indicate the series  
 (b) The first digit indicates the width of the bearing.

Example: MA 1205 EL      1 denotes narrow width

Example: MA 5205 EL      5 denotes wide width

(c)The second digit indicates the series of the bearing.

Example: MA 1205 EL      2 denotes light series.

Example: MA 1305 EL      3 denotes medium series.

(d) The last two digits when multiplied by 5 will give the bore diameter in millimeters.

Example: MA 1205 EL      5x05=25mm.

**Bower****Conversion Charts For Basic Series****Separable Inner Ring Type Bearings**

BOWER	MA-TV	MA-EL	MR-TV	MR-EL	MR-UV	MSN-EL
AETNA	L-PR	L-KR	—	M-KR	M-NR	MTW-KR
AFBMA	RM-	RU-	RR-	RJ-	RS-	RT
FAG	—	NU-	—	NJ-	—	NUP-
FLT	—	NU-	—	NJ-	—	—
HYATT	A-TS	A-WB	R-TS	R-WB	R-YS	JRN-WB
KOYO	—	NU-	—	NJ-	—	—
LINK-BELT	MA-TV	MA-EX	MR-TV	MR-EX	MR-UV	MSN-EX
MRC	—	MR-E	—	MR-G	—	—
NTN	—	NU-	—	NJ-	—	—
RBC	A-TS	A-WB	—	R-WB	R-YS	—
RHP	—	NU-	—	NJ-	—	—
ROLLWAY	E-B	E-U	L-B	L-U	L-J	LP-U
SKF	HNU-A	NU-	HNJ-A	NJ-	—	—
SNR	—	NU-B	—	NJ-B	—	—
SRO	—	NU-	—	NJ-	—	—
STYR	—	NU-	—	NJ-	—	—



## Bower

## Conversion Charts For Basic Series

Separable Outer Ring Type Bearings						Non-Separable Type Bearings				
BOWER	MU-DL	MU-CL	MU-SNL	MU-DV	MU-CV	MU-SNV	MU-TV	MU-TM	MU-UV	MU-UM
AETNA	RK-M	RK-L	RK-MTW	—	—	—	K-PR	K-P	K-NR	K-N
AFBMA	RF-	RN-	RP-	RF-	RN-	RP-	RK-	RK-V	RY-	RY-V
FAG	NF-	N-	—	NF-	N-	—	—	—	—	—
FLT	NF-	N-	—	NF-	N-	—	—	—	—	—
HYATT	BU-L	BU-Z	BU-LNJ	BU-L	BU-Z	BU-LNJ	U-TS	U-TM	U-YS	U-YM
KOYO	NF-	N-	—	NF-N	N-	—	—	—	—	—
LINK-BELT	MU-DX	MU-CX	MU-SNX	MU-DX	MU-CX	MU-SNX	MU-TV	MU-TM	MU-UV	MU-UM
MRC	MR-D	MR-C	—	—	—	—	—	—	—	—
NTN	NF-	N-	—	NF-N	N-	—	—	—	—	—
RBC	BU-L	BU-Z	BU-LNJ	BU-L	BU-Z	BU-LNJ	U-TS	U-TM	U-YS	U-YM
RHP	NF-	N-	—	NF-N	N-	—	—	—	—	—
ROLLWAY	U-L	U-E	U-LP	U-L	U-E	U-LP	U-B	UM-B	U-J	UM-J
SKF	NF-	N-	—	—	—	—	HNC-A	HNC-AV	—	U-TM
SNR	—	N-B	—	—	—	—	—	—	—	—
SRO	NF-	N-	—	—	—	—	—	—	—	—
STEYR	—	N-	—	—	—	—	—	—	—	—



## Bower

### Bower Cylindrical Roller Bearings

#### Type SI- Separable Inner Rings

Type	Design Features	Application
MA-EL	Two ribbed outer ring. Straight, separable inner ring. Rollers retained with outer ring. Composite steel cage.	Permits axial float of shaft. Accommodates contraction or expansion at one end of a shaft. Bearing at opposite end locates shaft.
MA-TV	Two split retaining rings in outer ring. Straight, separable inner ring. Rollers retained with outer ring. One piece steel cage.	Permits axial float of shaft. Low cost bearing type. Accommodates contraction or expansion at one end of a shaft. Bearing at opposite end locates shaft.
MR-EL	Two ribbed outer ring. One ribbed, separable inner ring. Rollers retained with outer ring. Composite steel cage.	Takes moderate thrust loads or locates shaft in one direction only. When used in pairs on a common shaft, thrust loads can be taken or shaft located in either direction.
MR-TV	Two split retaining rings in outer ring. One ribbed, separable inner ring. Rollers retained with outer ring. One piece steel cage.	Outer ring is located axially in one direction by inner ring rib. Location in opposite direction be provided for. Rib on inner ring can be used to facilitate its removal from shaft. Will not accommodate thrust loads or locate shaft.
MR-UV	One split retaining ring and one rib in outer race. One ribbed, separable inner ring. Rollers retained with outer ring. One piece steel cage.	Takes moderate thrust loads or locates rotating members in one direction. When used in pairs on a common shaft thrust loads can be taken or shaft located in either direction.
MSN-EL	Two ribbed outer ring. Removable, short, one ribbed inner ring and loose side plate. Rollers retained with outer ring. Composite steel cage.	Takes moderate thrust loads or locates rotating member axially in both directions. Bearing can be installed separately or as a unit.

#### Type S0-Separable Outer Rings

Type	Design Features	Application
MU-CL	Straight, separable outer ring Two ribbed inner ring. Rollers retained with inner ring. Composite steel cage.	Permits axial float of shaft, like MA-EL but rollers are retained with inner ring; desirable for some applications.
MU-CV	Same design features and application as described above for MU-CL except it uses one piece steel cage.	





## Bower

### Bower Cylindrical Roller Bearings

MU-DL	One ribbed, separable outer ring. Two ribbed inner ring. Rollers retained with inner ring. Composite steel cage.	Takes moderate thrust loads or locates shaft in one direction only. When used in pairs on common shaft, thrust loads can be taken or shaft located in either direction.
MU-DV	Same design features and applications as described above for MU-DL above, except it uses one piece steel cage.	
MU-SNL	Removable, short, one ribbed outer ring and loose side plate. Two ribbed inner ring. Rollers retained with inner ring. Composite steel cage.	Takes moderate thrust loads or locates rotating member axially in both directions. Bearing can be installed separately or as a unit.
MU-SNV	Same design features and application as described above for MU-SNL, except it uses one piece steel cage.	

### Type NS-Non-Separable Bearings

Type	Design Features	Application
MU-TV	Two split retaining rings in outer ring. Two ribbed inner ring. One piece steel cage.	Used where bearing must be as a unit and where design has no provision to Retain outer ring axially. Will not accommodate thrust loads or locate shaft.
MU-TV	Same design features and applications as described above for MU-TV, except outer ring contains one split retaining ring and one solid rib which will take moderate thrust loads or locate shaft in one direction.	
MU-TM	Two split retaining rings in outer ring. Two ribbed inner ring. No cage (full complement of rollers).	Use is similar to MU-TV above. Cage is omitted and rollers added for increased radial load capacity. Permissible bearing speed, however, is less than caged type bearing.



## Bower

### Bower Cylindrical Roller Bearings

**MU-UM** Same design features and application as described above for MU-TM except outer ring contains one split retaining ring and one solid rib that will take a moderate thrust load or locate shaft in one direction.

#### Inner or Outer Ring Omitted

Type	Design Features	Application
<b>M-EL</b>	Two ribbed outer ring. Inner ring omitted. Composite steel cage.	Where mounting space is limited, rollers run directly on a hardened and ground shaft.* Shaft diameter can be increased to replace omitted inner ring for added stiffness. Savings are possible by using a smaller bearing and eliminating inner ring.
<b>M-TV</b>	Two split retaining rings in outer ring. Inner ring omitted. One piece steel cage.	Use is similar to M-EL above.
<b>MU-L</b>	Outer ring is omitted. Two ribbed inner ring. Composite steel cage.	Where space is limited, housing bore can be reduced - permitting rollers to run directly on hardened and ground housing bore.* Shaft diameter can be increased for added stiffness by eliminating outer ring and using next larger size bearing bore. Housing bore is modified to suit diameter over the rollers. Savings are possible by eliminating outer ring.
<b>MU-V</b>	Same design features and applications as described above for MU-L except bearing uses one piece steel cage.	

\*Shaft or housing bore surfaces functioning as bearing raceways must have a hardness of Rockwell C59 to C64 and a maximum surface finish of 18 RMS. Deviation from this surface finish or hardness will require a reduction in the catalog rating of the bearing.



## Cooper

### Prefix and Suffix Guide

Prefix	Equal To
O1	Medium Series
O2	Heavy Series
O3	Heavy Heavy Series
B	Bearing
C	Cartridge
P	Pedestal Housing
F	Flange Housing
S	Steel Housing
Suffix	Equal To
GR	Non-expansion
EX	Expansion

## FAG

### FAG Prefixes and Suffixes

Prefix	Suffix	Meaning
	.A...	Axial clearance in (uncoded).
	A	Changed thread diameter of withdrawal sleeves.
	A	Modified internal design.
	A	Changed thickness of the sheet metal of lock washers (deviating from DIN 5406).
	.ABEC1	Tolerance classes ABEC1...ABEC9
	.ABEC5	In accordance with AFBMA standard.
	.ABEC7	
	.ABEC9	
ABO.		Loose lip of the outer ring of abnormal cylindrical roller bearings.
AR.		Outer ring of a rolling bearing if the prefix L cannot be used.
ARK.		Outer ring with rolling element and cage assembly if the prefix R cannot be used.
	AS1	Needle roller bearing with one lubricating hole in the outer ring.
	AS3	Needle roller bearing with one lubricating hole in the outer ring.
	ASR1	Needle roller bearing with lubricating groove and one lubricating Hole in the outer ring.
	ASR3	Needle roller bearing with lubricating groove and three lubricating holes in the outer ring.
	B	Modified internal design.
	.B	Spacer width (in mm) with multirow tapered roller bearings.
	.BL	Crowned inner or outer ring raceway of cylindrical roller bearings and tapered roller bearings.
BO.		Loose lip of a cylindrical roller bearing.
	C	Modified internal design.

## FAG

### FAG Prefixes and Suffixes

.CD	Cadmium plated bore of S-type bearings.
.C0	Normal bearing clearance in accordance with DIN 620 (uncoded only in exceptional cases).
.C1	Clearance group C1...C5 in accordance with
.C2	DIN 620
.C3	
.C4	
.C5	
D	Modified internal design.
D	Adapter sleeve split.
DA	Double row angular contact ball bearing with split separable inner ring.
DB	Crowned O.D.
DUL, DUM	Spindle bearing pair in universal design, for USA only (duplex set).
DUH	
DZ	Cylindrical O.D of yoke type track rollers and stud type track rollers.
E	Modified internal design.
.E...	Packaging specifications (technical specification)
EK	Thrust ball bearing without housing washer.
F	Small steel nuts.
.F...	Production specifications (will in future one by one be replaced by "TS")
F	Machined steel cages.
FA, FAS	Observe (,)rule.
FB,FBS	

## FAG

### FAG Prefixes and Suffixes

FP	
FPA,FPAS	
FPB,FPBS	
F,FA	Machined window-type steel cages for needle roller bearings.
FC, FD	
FH,FH1	Observe (.)rule.
FV,FV1	
FR,FVR	
FZW FKID	
FKIVA FKIV1	
FKIV1ZW	
G...	Grade class of balls (ISO 3290)
.G...	Housing specifications (will in future one by one be replaced by "TS").
G2	Quality classes G2...G5 for needle rollers in accordance with DIN 5402
G3	Quality classes G2...G5 for needle rollers in accordance with DIN 5402
.GA	Especially low-noise needle roller bearings and needle roller and cage assemblies.
GS.	Housing washer for thrust bearings.
.H...	Other specifications (technical specification).
H	Withdrawal sleeve for hydraulic mounting.
H	Locknut with tapped holes for mounting screws.
H	Extraction nut with tapped holes for jacking screws.
H.	Clamping sleeve for self-aligning ball bearings of series 115 and 116.
.HG	FAG tolerance class for spindle bearings.

## FAG

### FAG Prefixes and Suffixes

HG	Adapter sleeve for hydraulic mounting, with oil grooves on the tapered O.D and pump connection at the thread end.
HGJ	Adapter sleeve for hydraulic mounting, with oil grooves on the tapered O.D and in the sleeve bore, pump connection at the thread end.
HGJS	Design like HGJ, but with mounting screws and mounting plate.
HGS	Design like HG, but with mounting screws and mounting plate.
HK	Adapter sleeve for hydraulic mounting, with oil grooves on the tapered O.D and pump connection at the large O.D end.
HKJ	Adapter sleeve for hydraulic mounting, with oil grooves on the tapered O.D and in the sleeve bore, pump connection at the large O.D end.
HKJS	Design like HKJ, but with mounting screws and mounting plate.
HKS	Design like HK, but with mounting screws and mounting plate.
HP	Locknut for hydraulic mounting, with tapped holes and bore(s) for pump connection; without mounting screws.
HPS	Locknut for hydraulic mounting, with tapped holes and bore(s) for pump connection; with mounting screws.
HS	Locknut with tapped holes and mounting screws.
HS	Extraction nut with tapped holes and extraction screws.
*** J	Lubricating groove, lubricating hole and blind hole for plug with cartridge type bearings.
.J...	Preservation specifications, specifications for surface treatment and lubrication. (technical specification)
J,JL	Pressed steel cages.
JN,JS	Observe (.)rule.
JH,JP	
JPA,JP1	
JP,JP1	Sheet metal window-type steel cages for needle roller bearings.

## FAG

### FAG Prefixes and Suffixes

JPH, JPH1	
JP1H1	
JPSH	
JPSH1	
JPD, JPC	
JPSV	
JPZW	
JP2H	
JR	Inner ring of a rolling bearing if the prefix L cannot be used.
JRK	Inner ring with rolling element and cage assembly if the prefix R cannot be used.
JS1	Needle roller bearings with one lubricating hole in the inner ring.
JSR1	Needle roller bearings with lubricating groove and one lubricating hole in the inner ring.
K	Rolling element and cage assembly (cage with rolling elements)
K	Tapered bearing bore, taper 1:12.
.K...	Inspection specifications (will one by one be replaced by "TS")
K30	Tapered bearing bore, taper 1:30
(.)KB	KB profile (tapered-crowned); for tapered rollers.
KF	Cage without rolling elements.
KRSR	Tapered bore; one seal.
KRSR.ZR	Tapered bore; one seal and one dust shield.
KZR	Tapered bore; one dust shield.
KZR.RSR	Tapered bore; one dust shield and one seal.
.L12V, L64V	FAG standard greases Arcanol



## FAG

### FAG Prefixes and Suffixes

	.L71V,L74V	
	.L78V,L79V	
	.L135V,L186V	
	.L9	Preservation specifications
L		Separable bearing ring including possible loose lips of separable roller bearings.
	.L...M	FAG grease of a certain quantity
	.L...T	(filling rate).
	.L...TA	
	.L...H	
	.L...F	
	.L...FS	
	L	Machined light metal cages.
	LA,LAS	Observe (.) rule.
	LB,LBS	
	LP	
	LPA,LPAS	
	LPB,LPBS	
	LH	Sleeves and nuts with left-hand thread.
	LS	Seal for cylindrical roller bearings, double row, full complement.
	.M...	Measurement and test specifications, specification for documentation (technical specification).
	M	Machined brass cages.
	MA,MAS	Observe (.) rule.
	MB,MBS	



## FAG

### FAG Prefixes and Suffixes

MS,MP	
MPA,MPAS	
MP1	
MPB,MPBS	
M1	Machined brass cage; with integral crosspiece rivets. Observe (.) rule.
M1A,M1B	
MZA	Machined brass cage; two thrust washers with spacer pins. Observe (.)rule.
MZB	
N	Circular groove for snap ring in the outer ring.
N1,N2	Retaining groove(s) in the outer ring or in the housing washer.
N3,N4	Retaining groove(s) and circular groove(s) in in the outer ring or in the housing washer.
N5,N6	
.N...	Specifications for matched rolling bearings (technical specification)
NA	Bearing rings not interchangeable; applies only in connection with C1 bearing clearance in single and double row cylindrical roller bearings.
NB	Circular groove for snap ring in the outer ring at the sealed end.
.OB	Cylindrical roller bearing (NJP,NFP) without loose lip.
.OF	Balls ungreased, packed in VCI paper.
.OH	Self-aligning ball bearings series 115 and 116 without clamping sleeves.
.OM	Adapter sleeve without locknut but with locking device.
.OMS	Adapter sleeve with neither locknut nor locking device.
.OS	Adapter sleeve without locking device but with locknut.
.OSR	S-type bearing without retaining ring.
.OZWR	Tapered roller bearings, double row, without spacer.

## FAG

### FAG Prefixes and Suffixes

P	Double row angular contact ball bearing and spherical roller bearing with split outer ring.
.PO	Normal tolerance class in accordance with DIN 620 (coded).
.P2,.P4	Tolerance classes P2...P6X in accordance with DIN 620.
.P5,.P6	
.P6X	
.PL1	FAG tolerance and radial clearance classes PL1...PL6 for thin section bearings.
.PL3	
.PL4	
.PL6	
PR	Spherical roller bearings with split outer ring and fitted-in spacer.
.Q3	FAG tolerance class for tapered roller bearings in inch dimensions.
.Q5	FAG tolerance class for linear ball bearings.
.QP..	Cross profile of roller bearing raceway or roller O.D in accordance with corresponding specifications.
R	Tapered roller bearing and miniature deep groove ball bearing with flange at the outer ring.
R	Needle roller and cage assemblies with radiussed edges.
R	Bearing ring with rolling element and cage assembly of Separable roller bearings or needle roller bearings (except Series NK.A).
REP.	Repair bearing.
RSD	Non-rubbing seal at one end.
RSR	Seal at one end
RSRN	Seal and circular groove
RSRN.ZR	Seal, circular groove and dust shield at opposite end.

## FAG

### FAG Prefixes and Suffixes

RSRNB	Seal and circular groove at same end.
S	Lubricating groove and three lubricating holes in the outer ring.
.S0	Dimensionally stable for temperatures of up to +150°C
.S1	Dimensionally stable for temperature of up to +200°C
.S2	Dimensionally stable for temperature of up to +250°C
.S3	Dimensionally stable for temperatures of up to +300°C
.S4	Dimensionally stable for temperatures of up to +350°C
S.A.	Outer ring (housing washer) dimensionally stabilized.
S.B.	Inner ring (shaft washer) dimensionally stabilized.
S	Stainless steel rolling bearing.
SE1	Machined sinter iron cages.
SE1A,SE1B	Observe (.)rule.
SF	Solid window-type steel cage for needle roller bearings (band cage).
SFA,SFB	
SFBH1	Observe (.)rule.
SFBZW	
SFZW	
.SP	FAG tolerance class for cylindrical roller bearings.
SY	Bearing without lubricating groove, but with three lubricating holes in the outer ring.
.T...	Tolerance specifications for dimensional, form and running accuracy (TS specification).
.T5,.T7	Tolerance class T5...T9 (FAG Canada).
.T9	
TA	Machined cages of textile laminated phenolic.



## FAG

## FAG Prefixes and Suffixes

TB,THB	Observe (.)rule.
TP	
TPA,TPB	
THS	Extraction nut (trapezoidal thread) with tapped holes and extraction screws.
TN	Moulded polyamide cages.
TNH,TNP	Observe (.)rule.
TN,TN1	Moulded window-type cages of glass fibre reinforced polyamide for needle roller bearings.
TNK,TN1K	
TNZW	Observe (.)rule.
TNKZW	
T,TV	Moulded cages of glass fibre reinforced polyamide.
TVA,TVB	Observe (.)rule.
TVH,TVP	
TVPB	
TV1,TVP2	
.TW	Separating rolling elements.
U	Adapter sleeves or withdrawal sleeves, unslit.
.U...	Specifications for needle roller bearings (will one by one be replaced by "TS").
U.	Spherical seating ring for abnormal thrust bearings.
.UA	Universal designs for angular contact ball
.UA...	bearings and spindle bearings.
	-with axial clearance.
.UL	-light preload.

## FAG

### FAG Prefixes and Suffixes

.UM	-medium preload.
.U0	-zero-clearance
.US	-heavy preload.
.UP	FAG tolerance class for cylindrical roller bearings and angular contact thrust ball bearings.
V	Full complement bearing.
.VA...	Axial preload in (uncoded).
VH	Full complement cylindrical roller bearing with self-retained roller complement.
.VR...	Radial preload in (uncoded).
VT	Bearing with separating rolling elements.
.W...	Specifications for heat treatment and materials (technical specification).
WS.	Shaft washer for thrust bearings.
X	Modified boundary dimensions of bearings and sleeves (adaptation to international standards).
Y,YH	Pressed brass or bronze cages.
YN,YP	Observe (,)rule.
YPB	
Z	Dust cap as a sealing and holding element for combined needle roller bearings.
.Z...	Production and inspection specifications (will one by one replaced by "TS").
.ZB2	Curvature of the needle roller generatrix at the ends; greater than normal.
ZR	Dust shield at one end.
ZR.RSR	Dust shield and seal.



## FAG

## FAG Prefixes and Suffixes

ZRN	Dust shield and circular groove.
ZRNB	Dust shield and circular groove at same end.
ZRN.RSR	Dust shield, circular groove and seal at opposite end.
ZZ	Yoke type track roller with two contact washers for the outer ring.
.2GS	Thrust bearing with two housing washers.
.2LS	Seals at both ends of cylindrical roller bearings, double row, full complement.
.2RSD	Non-rubbing seal at both ends.
.2RSR	Seals at both ends.
.2WS	Thrust bearing with two shaft washers.
.2ZR	Dust shields at both ends.
.700...	Specifications (700000 number) will one by
.780...	one be replaced by "TS".
.790...	
.795...	
/...	Changed bore of adapter and withdrawal sleeves (bore changed to the value (in millimeters) following the slant).
....	Applies for inch-size bores of S-type bearings, split spherical roller bearings and sleeves (the type designation is separated from the bore reference number by a dot. The 1st figure following the dot gives the whole inches, the two last figures give the 16th parts of inches).



## Federal

### Passenger Cars-Light Trucks-Popular Foreign Cars

Prefix	Suffix	Meaning
A		Contact lines on double row converge on outside
A		Non-separable (6000 series only)
	A	Deviation from standard design
B		Separable (6000 series only)
	B	External self-aligning (bearing only)
C		Pillow block (bearing only)
C		Counterbored outer ring, separable
	CG	Snap ring groove (Standard position on double row (Bearings is on filling slot side)
DU		Pair of bearings universally ground
E		Electric motor quality
	E	Plastic seal
F		Flanged outer ring
	F	Single shield
	FF	Double shield
F	G	Shield and snap ring groove on same side (Non-Standard)
F	GR	Shield and snap ring groove on same side, R seal opposite (Non-Standard)
F	M	Shield on filling slot side (Non-Standard)
F	MG	Shield and snap ring groove on filling slot side (Non-Standard)
F	MGR	Shield and snap ring groove on filling slot side, R seal opposite (Non-Standard)
F	MR	Shield on filling slot side, R seal opposite (Non-Standard)
FOOO		Front wheel series





## Federal

### Passenger Cars-Light Trucks-Popular Foreign Cars

FB		Magneto type
FS		Special Design
G	M	Snap ring groove on side opposite filling slot (Non-Standard)
G	MF	Snap ring groove and shield on side opposite filling slot (Non-Standard)
G	MFF	Snap ring groove on side opposite filling slot (Non-Standard)
GF	M	Snap ring groove on side opposite filling slot and shield (Non-Standard)
GF	MR	Snap ring groove on same side as R seal, filling slot and shield opposite (Non-Standard)
GR	MF	Snap ring groove on same side as shield, filling slot and R seal opposite (Non-Standard)
	GF	Snap ring groove with shield on opposite side (Standard)
	GFF	Snap ring groove with shields on both sides
	GR	Snap ring groove with R seal opposite (Standard)
	GRR	Snap ring groove with R seals on both sides
	H	Synthetic rubber contact seal
	I	Double row self-aligning with extended inner ring
	J	Molded synthetic rubber lip seal
	K	Removable synthetic rubber lip seal
	L	Non-removable synthetic rubber lip seal
LS		Light inch series
MS		Medium inch series
	M	Filling slot type
	MF	Shield on side opposite filling slot (Standard)



## Federal

### Passenger Cars-Light Trucks-Popular Foreign Cars

MFF		Double shield (Filling slot type)
MG		Snap ring groove on filling slot side (Standard)
MGF		Snap ring groove on filling slot side, shield opposite (Standard)
		Snap ring groove on filling slot side, double shielded (Standard)
MWI		Filling slot type with extended inner ring
NC		Pillow block series
PF		Pump and fan type
R		Small inch series
	R	Synthetic rubber contact seal
R	G	R seal and snap ring groove on same side (Standard)
R	GF	R seal and snap ring groove on same side, shield Opposite (Standard)
R	MF	R seal on filling slot side, shield opposite (Standard)
R	MGF	R seal and snap ring groove on filling slot side, shield opposite (Standard)
RW		Rear wheel series
	S	External self-aligning
	SA	Internal self-aligning
SC		Pillow block series
SOC		Extended inner ring with collar
	SS	Stainless Steel
U		Flange Adapter (bearing only)
U		Single bearing universally ground
	X	Adapter type



Federal

Passenger Cars-Light Trucks-Popular Foreign Cars

XLS	Extra light inch series
XY	Adapter type with sleeve
Y	Adapter sleeve

## FYH

Pillow Blocks			Description
UCP2	UKP2	(Normal Duty)	This is the most representative unit and is universally used in all types of the transmission devices. UCP Type and SL Type are fixed at the shaft in a simple and reliable manner by means of the set screws with hexagonal holes prepared in the inner ring. UKP Type is mounted at the shaft with the adapter. It is suitably applied as the intermediate bearing of the long shaft or when the shaft precision is low and shaft diameter is uneven. NAP Type is fixed at the shaft by use of the eccentric locking collar and is set completely at the shaft, due to the self locking action.
SL2		(Normal Duty)	
NAP2		(Normal Duty)	
UCPX	UKPX	(Medium Duty)	
UCP3	UKP3	(Heavy Duty)	
UCPE2		(Normal Duty)	This unit is used under high temperature. Beside the automatic center alignment, the sliding between the inner diameter face of the Housing and the outer diameter of the intermediate ring can adjust the elongation by the heat expansion of shaft to the thrust direction.
UCPH2		(Normal Duty)	UCPH2 type pillow block pedestal design with increases center height. It is especially applied to a fan or blower. The unit is comparable to UCP2 type under normal shock load. Life is prolonged and maintenance costs are lowered.
UCPA2		(Normal Duty)	UCPA2 type Pillow Block is very convenient, since they can be used even if operating space is restricted. It can be fitted with bolts from underneath of the base.
ALP2	(SA2 fitted)	(Light Duty)	ALP2 and BLP2 type Pillow Blocks are used as light-duty units, in which SA2 type and SB2 type Bearings respectively are fitted. ALP2 type is fixed at the shaft with eccentric locking collar and BLP2 type is fixed with the setscrews.
BLP2	(SB2 fitted)	(Light Duty)	

Flange Units			Description
UCF2	UKF2	(Normal Duty)	It is most extensively used as the flange type unit. The mounting method is either with the set screws (UCF, SLF Types) and with the adapter (UKF Type).
SLF2		(Normal Duty)	
UCFX	<b>UKFX</b>	(Medium Duty)	
UCF3	UKF3	(Heavy Duty)	

## FYH

Flange Units			Description
ALF2	(SA2 fitted)	(Light Duty)	ALP2 and BLP2 type Pillow Blocks are used as light-duty units, in which SA2 type and SB2 type Bearing and cast iron flange housing respectively. ALF2 type is fixed at the shaft with eccentric locking collar and BLF2 type is fixed with setscrews.
BLF2	(SB2 fitted)	(Light Duty)	
UCFL2	UKFL2	(Normal Duty)	This housing is rhombic in form and is mounted at the side of the machine by means of 2 bolts. This is useful in saving the space and weight. The set bolt pitch is the same with that of the square flange type (UCF Type), and is interchangeable each other. UCFL Type is set at the shaft by use of the set screws and UKFL Type by use of the adapter.
UCFLX	UKFLX	(Medium Duty)	
UCFL3	UKFL3	(Heavy Duty)	
UCFA2		(Normal Duty)	Adjustable Flange Unit has a two-bolt base with one side adjustable, enabling distance from center of shaft to be varied. Regarding their efficiency, advantages and disadvantages, it is similar to UCF2 type with a four bolt base.
UCFB2		(Normal Duty)	UCFB2 type Flange Unit is a versatile unit used on extension or hanger and designed for housing confined spaces which do not allow use of Pillow Blocks and Flange Units.

Flange Cartridge Units			Description
UCFC2	UKFC2	(Normal Duty)	This housing is round in form and equipped with spigot at the mounting face. Therefore, the mounting can be made free from the eccentricity and the exact positioning can be achieved. This is most suitably applied to the assembly where the precision assembling is required. UCFC Type is fixed with the set screws and UKFC Type is mounted with the adapter at the shaft.
UCFCX	UKFCX	(Medium Duty)	
UCFS3	UKFS3	(Heavy Duty)	The housing is square in form and has the spigot at the mounting face as UCFC Type. Accordingly, the exact positioning can be arranged, without the eccentricity. It is suitably applied to such a place where the heavy duty and high precision are required. The mounting to the shaft is made either by the set screws (UCFS Type) or the adapter (UKFS Type).

Take up Units			Description
UCT2	UKT2	(Normal Duty)	The structure allows the free movement of the unit, due to the sliding slot at the side of the housing. This unit is most suitably used to the tension bearing for belt conveyor or to the place where the shaft distance must be adjusted. UCT Type is set at the shaft by use of the set screws and UKT Type by use of the adapter.
UCTX	<b>UKTX</b>	(Medium Duty)	
UCTS	UKT3	(Heavy Duty)	

## FYH

Cartridge Units			Description
UCC2	UKC2	(Normal Duty)	The outer diameter of this housing is determined of the cylinder which is subjected to the precision grinding. This unit can be used as the normal bearing, utilizing the automatic center alignment. It is widely used in the place where the adjustment to the axial direction is needed or in transmission shaft which is accompanied by the expansion and contraction. UCC Type is set at the shaft by use of the set screws, and UKC Type by use of the adapter.
UCCX	<b>UCKX</b>	(Medium Duty)	
UCC3	<b>UKC3</b>	(Heavy Duty)	

Hanger Bearing Units			Description
UCHA2		(Normal Duty)	UCHA2 type Hanger Bearing Unit is mounted on a frame work of a conveyor by means of screwed pipe. The housing is rigid but of the smallest possible size. Lubrication is achieved by means of nipple through tubing.

Pressed Housing Pillow Blocks			Description
SAPP2F	(SA2 fitted)	(Light Duty)	SAPP2F and SBPP2F type Pillow Blocks are types of which SA2 type eccentric locking collar and SB2 type with setscrew bearings are assembled respectively into a two-piece pressed-steel housings. The housing is suitable for light duty applications, where providing normal Pillow Blocks are used.
SBPP2F	(SB2 fitted)	(Light Duty)	

Pressed Housing Flange Units			Description
SAPF2/ SAPFS2	(SA2 fitted)	(Light Duty)	SAPF2, SAPFS2, SBPF2, SBPFS2 type Flange Units are types which SA2 with eccentric locking collar type and SB2 with setscrew type Bearings are assembled respectively into two piece pressed-steel housings. They are widely used light and normal duty applications. For SAPFS2 and SBPFS2 Types, the bearing is covered by the steel plate and therefore the dust-proof property is outstanding.
SBPF2/ SBPFS2	( <b>SB2</b> fitted)	(Light Duty)	

Pressed Housing Flange Units			Description
SAPFL2	(SA2 fitted)	(Light Duty)	SAPFL2 and SBPFL2 type Flange Units consist of two interchangeable pressed-steel housings in which SA2 or SB2 type wide inner ring bearing is assembled. Easy to install, the PFL type Flange Units provide a low-cost power transmission units with moderate capacity for radial or thrust combined loads. The spherical outside diameter of the bearing's outer ring to provide initial self-alignment in any direction.
SBPFL2	( <b>SB2</b> fitted)	(Light Duty)	

## FYH

### Framed Take up Units

### Description

UCTH2	(UCT2 fitted)	(Normal Duty)	UCTH2 type Framed Take up Unit for UCT2 type Take up Unit is designed for maximum strength, and is rigid Mono-frame of cast iron. The unit can freely be adjusted along length of the steel tracks.
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### Bearings Only

### Description

UC2	(Normal Duty)	UC2, UCX, and UC3 Type Ball Bearings are assembled into the various housings. The bearing inner diameter surface is of cylindrical bore type and the setscrews are used to mount to the shaft.
UCX	(Medium Duty)	
UC3	(Heavy Duty)	
UK2	(Normal Duty)	UK2, UKX, and UK3 types Ball Bearings are assembled into the various housings with the adapter mounted. They are suitable to the long shaft or to the place where the shaft diameter precision is uneven. Since it is provided with the complete dust-proof mechanism, the bearing service life is surprisingly long.
UKX	(Medium Duty)	
UK3	(Heavy Duty)	
NA2	(Normal Duty)	NA2 type Ball Bearing is assembled into the various housings and it has an eccentric collar on the outside of the inner ring for locking to the shaft. Like UC Type Bearing, it can be used in any place and maintains the long bearing service life. RB2 type Ball Bearing has the straight outer diameter surface and can be used in the same manner as the normal bearing. The fixing to the shaft is made in a simple and reliable manner by use of the setscrew. Since it has the complete dust-proof construction, it is useful to reduce the machine cost.
RB2	(Normal Duty)	
ER2	(Normal Duty)	
SA2	(Light Duty)	SA2 type Ball Bearing is sealed on both sides with newly developed J and K type seals and it has an eccentric locking collar on the outside of the inner ring. It can be used for assembling use with any type of the housing for light duty.
SB2	(Light Duty)	SB2 type Ball Bearing is the smaller type of UC2 type bearing. It can be used in combination with any light duty housing. Though it is small in size, it has as high load bearing capacity as that of UC2 type bearing and the long service life.
SC2	(Light Duty)	SC2 type Ball Bearing is sealed on both sides with synthetic rubber seals and assembled into such units as CF2 CFN2 and similar. As shown in illustration this bearing has a different shape from SA2 and SB2 type bearings.

### Special Bearings

### Description

W 208 PPB	W 208 PP	W208 PPB is square-bored bearing with FYH NEW TRIPLE SEALS It is applicable to a place where especially dirt and dust encounter such as agricultural or civil engineering machinery. The square-bored makes it easy to be handled when mounting on a shaft. A similar type with a cylindrical bore is also available. Besides, FYH has been manufacturing various types of square-bored bearing with triple seals.
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## GENERAL

### General Bearing Corporation

Suffixes	Meaning
C2	Radial internal clearance less than Normal-marked '0' or 'C2'.
C0	Normal grade of radial internal clearance-not marked.
C3	Radial internal clearance greater than Normal-marked '000' or 'C3'.
C4	Radial internal clearance greater than C3-marked '0000' or 'C4'.
C5	Radial internal clearance greater than C4-marked '00000' or 'C5'.
7	One shield.
77	Two shields.
8	One synthetic rubber seal.
88	Two synthetic rubber seals.
K	Tapered bore.
RS	One synthetic rubber seal.
2RS	Two synthetic rubber seals.
Z	One shield.
ZZ	Two shields.
RSZ	One synthetic rubber seal and one shield.
NR	Snap ring groove and snap ring.



## GMN

Deep Groove Bearings			Description	
Prefix	1	Material	-	Bearings made of chrome steel have no prefix
			M	Bearings made of high temperature steel (on request)
			HY	Balls and rings from different materials (Hybrid bearings)
	2	Bearing size	6202	Designation of dimension series and bore
	3	Features Sealing	Z	Shield with snap ring on one side of the bearing
	4	Cage	2Z	Shields with snap rings on both sides of the bearing, with bearing pairs (matched bearing) shields are on the outside faces
			J	Cage, Steel sheet
			T9H	Snap cage, glass-fibre-reinforced polyamide, ball riding
			TBH	Snap cage, laminated phenolic resin, inner-land-riding
			TA	Solid cage, laminated phenolic resin, outer-land-riding
			TB	Solid cage, laminated phenolic resin, inner-land-riding
			MA	Solid cage, brass, outer-land-riding
Suffix	5	Precision	P4	Tolerance class P4 according to DIN 620
			P2	Tolerance class P2 according to DIN 620
			A7	Tolerance class ABEC 7 according to AFBMA
			A9	Tolerance class ABEC9 according to AFBMA
			HG	GMN high precision according to GMN specification
			UP	GMN ultra precision according to GMN specification
			C2	Radial clearance smaller than normal
	6	Bearing Clearance	-	Normal clearance (not shown in code)
			C3	Radial clearance greater than normal
			C4	Radial clearance greater than C3
			C5	Radial clearance greater than C4
				Reduced ranges of radial clearance are noted in clear (values without measuring load)

## GMN

Deep Groove Bearings			Description	
Suffix	7	Matched Bearings	DF	Face-to-face arrangement
			DB	Back-to-back arrangement
			DT	Tandem arrangement
			DUA	Universally matched with axial clearance
			DUO	Universally matched without axial clearance
	8	Heat Treatment	DUV	Universally matched with preload
			S1	Operating temperature up to +200°C
			S2	Operating temperature up to +250°C
	9	Lubrication	S3	Operating temperature up to +300°C
				Designation of grease, e.g. Asonic GLY 32

Spindle Bearing			Description	
Prefix	1	Material	-	Bearings made from chrome steel have no prefix
			M	Bearings made from high temperature steel
			HY	Balls and rings from different materials (Hybrid bearings)
	2	Bearing Type	S	Two lands on the inner ring
			SN	Two lands on the outer ring, for grease lubrication
			SM	Two lands on the inner ring, for high speed applications
			SMI	Two lands on the inner ring, for high speeds, but with lubricant supply through the inner ring
			SH	One land on the inner ring and the outer ring, optimum for oil-jet lubrication
			BNT	Two lands on the outer ring, inner ring removable
			BHT	Two lands on the outer ring, inner ring removable, for high speed applications
	3	Bearing Size	6002	Designation of dimension series and bore

## GMN

Spindle Bearing			Description	
Suffix	4	Special Dimensions	X-2Z	Extra wide, shields with snap rings on both dimension
	5	Contact Angle	C	15°
			E	25°
			18°	Special feature
	6	Cage	TA	Laminated phenolic resin cage or polyamide cage guided on outer ring
			TB	Laminated phenolic resin cage guided on inner ring
			TAM	Laminated phenolic resin cage guided on outer ring, ball retaining
			TXM	Molded plastic cage guided on outer ring, ball retaining
			P4	Tolerance class P4 according to DIN 620
	7	Precision	P2	Tolerance class P2 according to DIN 620
			A7	Tolerance class ABEC 7 according to AFBMA
			A9	Tolerance class ABEC 9 according to AFBMA
			A7/9	Dimensional and form accuracy according to A7, running accuracy according to A9
			HG	GMN high precision according to GMN specification
			UP	GMN ultra precision according to GMN specification
	8	High pointing	R	Indication of the point of radial runout (maximum wall thickness) on inner and outer ring
			Ri	Like R, however only on the inner ring
			Ra	Like R, however only on the outer ring
	9	Grading	X	Grading of bore and outer diameter



## GMN

Spindle Bearing			Description	
Prefix	10	Bearing sets	D	2 bearings
			T	3 bearings
			Q	4 bearings
	11	Matching	UL	Universal matching – light preload
			UM	Universal matching – medium preload
			US	Universal matching – heavy preload
			UV	Universal matching – preload by agreement
			DF	Face-to-Face arrangement
			DB	Back-to-Back arrangement
			DT	Tandem arrangement
	12	Heat treatment	S1	Operation temperature up to 200°C
			S2	Operation temperature up to 250°C
			S3	Operation temperature up to 300°C

Ball Bearings			Description	
Prefix	1	Material Code	-	Chrome steel
			SS	Stainless steel
	2	Basic Bearing Number		
	3	Specially Noise Tested	9	
Suffix	4		Z	Single Shield
			ZZ	Double Shield
			RSR	Rubber Seal
			2RSR	2 Rubber Seals
			RSRL	Light Drag Rubber Seal
			2RSRL	2 Light Drag Rubber Seals



## GMN

Ball Bearings			Description
Suffix	5		Y Pressed Brass Cage
			J Pressed Steel Cage
			TB Solid Fiber Retainer, Inner Ring Guided
			TBH Solid Fiber Retainer, Inner Ring Guided Crown Type
			TNH Plastic Snap Type Retainer
			T9H Solid Plastic (Polyamide) Retainer, Ball Guided
	6		A1 ABEC 1
			A3 ABEC 3
			A5 ABEC 5
			A7 ABEC 7
			A9 ABEC 9
	7	Radial Clearance Code	L .0001" to .0003"
			N .0002" to .0005"
			P .0005" to .0008"
			K .0008" to .0011"
			T .0010" to .0014"
			S Special
	8	Duplex Pairing Code	DB Duplex pairing Back-to-Back
			DF Duplex pairing Face-to-Face
			DT Duplex pairing Tandem
	9	Lubricant Code	A Aero Shell Grease 7 / MIL-G-23827 A
			B Beacon 325 / MIL-G-3278 A



## GMN

Ball Bearings		Description
Suffix	C	Texaco Unitemp 500
	D	Texaco Low Temp Ep / MIL-G-23827 A
	E	Versilube-2 Pts G-300 Grease / 1 Pt F-50 Oil
	F	Aero Shell Fluid 12 / MIL-L-6085 A
	F2	Versilube F-50 Oil
	G	Aero Shell Grease 15 A / MIL-G-25013 D
	H	Versilube ½ G-300 Grease / ½ F-50 Oil
	I	Versilube G-300 Grease
	K	Super MIL-ASU-M-100
	L	Super MIL-ASU-31052
	M	Mobil 28 / MIL-G-81322
	O	Isoflex NBU 15 / MIL-G-25760 A / MIL-G-7711 A / MIL-G-15793
	R	Isoflex LDS 18 spezial A / MIL-G-23827 A
	U	Andok-C
	X	Special
	O7	5 to 10%
	O1	10 to 15%
	O2	10 to 20%
	O8	15 to 25%
10	O3	20 to 30%
	O4	25 to 35%
	O5	30 to 40%
	O6	35 to 45%
	O9	40 to 50%
	10	Special
	OO	Grease Plate

"O" Zero  
Grease  
Pack Code



## HEIM

## UNIBAL Rod End/Spherical Bearings

Design Option	Option Offered On These Series		Ordering Instructions & Part Number Example For Specifying Design Options
Chrome Plated Balls	<b>HM</b>	HF	add "PB" to part number suffix. Example: and HM-6M with chrome plated ball would be an HM-6MPB.
	<b>HM-M</b>	HF-M	
	HME	HFE	
	M-M	F-M	
	LS		
Cross Drilled Oil Hole	LSS		add "G" to part number suffix. Example: an LSS-8 with cross drilled oil hole in ball and race and a grooved I.D on the ball would be an LSS-8G.
	LHA		
	LHB		
	LHSS		
	HM	HF	
Keyway/Keyslot (per NAS 559)	HME	HFE	add "K" to part number prefix. Example: an HME-8M with keyway would be an HMKE-M.
	HM-M	HF-M	
	HME-M	HFE-M	
	HMX	HFX	
	M-M	F-M	
Lubricators Zerk Type	MXJE		add "G" to part number suffix. Example: an HMX-* with a zerk type lubricator would be an HM-6G (available on sizes 4 through 16 only)
	HMA	HFA	
	HM	HF	
	HM-M	HF-M	
	M-M	F-M	
	M-CR	F-CR	



## HEIM

### UNIBAL Rod End/Spherical Bearings

Lubricators Flush Type	HMA	HFA	add "FG" to part number suffix. Example: an HMX-8 with flush type lubricator would be an HM-6G (available on sizes 4 through 16 only)
	HM	HF	
	HM-M	HF-M	
	M-M	F-M	
	HMX	HFX	
	M-CR	F-CR	
Stainless Steel Inserts (300 Series)	HM	HF	add "J" to part number prefix. Example: an HF-10 with 300 series stainless steel inserts would be an HFJ-10.
	HME	HFE	
	HM-M	HF-M	
	HME-M	HFE-M	
	HMX	HFX	
	M-M	F-M	
Stud	LS	LSS	add "Y" to part number suffix. Example: an HF-8C with a stud would be an HF-8 CY.
	HMA	HFA	
	CMHD	CFHD	
	HM	HF	





## IKO

## IKO Roller Followers - Prefix

Model Code		
Metric Series	NAST	Separable Roller Follower
	NART	Non-Separable Roller Follower
	NURT	
Inch Series	CRY	Non-Separable Roller Follower

## IKO Roller Followers - Suffix

Supplemental Code 1		
No-symbol		With cage type
V		Full complement type
Supplemental Code 2		
Separable Roller Follower	No-symbol	Open Type
	ZZ	Shield Type
	ZZUU	Sealed Type
Non-separable Roller Follower	No-symbol	Shield Type
	UU	Sealed Type
Supplemental Code 3		
No-symbol		With cylindrical outer ring
R		With crowned outer ring

## IKO Cam Followers - Prefix

Model Code		
Metric Series Cam Followers	CF	Standard Type Cam Follower
	CF...F	Stainless Steel Made Cam Follower
	CFES	Solid Eccentric Stud Type Cam Follower
	CFE	Eccentric Type Cam Follower

**IKO Cam Followers - Prefix**

Model Code		
Inch Series Cam Follower	CF...W	Thrust disk Type Cam Follower
	CF-RU1	Centralized Lubrication Type Cam Follower (With crowned outer ring)
	CF-FU1	Centralized Lubrication Type Cam Follower (With cylindrical outer ring)
	CF-SFU	Easy Mounting Type Cam Follower
	NUCF	Heavy Duty Type Cam Follower
	CFS	Miniature Type Cam Follower
	CR	Standard Type Cam Follower
	CRH	Super Duty Cam Follower

**IKO Cam Followers - Suffix**

Supplemental Code 1		
No-symbol	With cage type	
V	Full complement type	
Supplemental Code 2		
No-symbol	With screw driver slot	
B	With a hexagon hole	
Supplemental Code 3		
No-symbol	Shield Type	
UU	Sealed Type	
Supplemental Code 4		
No-symbol	With cylindrical outer ring	
R	With crowned outer ring	
Supplemental Code 5		
No-symbol	Class 0	
P6	Class 6	
P5	Class 5	Applicable to Miniature Type
P4	Class 4	Cam Follower



## INA

## Linear Recirculating Roller Bearing &amp; Guideway Assembly

Prefix	Definition	Suffixes	Definition
R	Roller	D	Design Version
U	Recirculating	H	Carriage Configuration
E	Unit		H: Narrow, Mounting from the top— Standard, Flanged
		L	Carriage Length
			L: Long Version — Standard, Flanged
			Lubrication Suffix
		OE	OE: Oil
			FE: Grease
		W2	Number of Carriages Per Assembly
		1000	Guideway Length In mm

## Linear Recirculating Roller Bearing &amp; Guideway Assembly

Prefix	Definition	Suffixes	Definition
K	Ball Type		Carriage Configuration
U	Recirculating	H	H: Narrow, Mounting from the top— Standard, Flanged
S	Unit Configuration		
E	Unit	L	Carriage Length
			L: Long Version— Standard Version
		W2	Number of Carriages Per Assembly
		V2	Preload Class
		1740	Guideway Length In mm



## INA

## Linear Guidance Systems

Prefix	Definition	Suffixes	Definition
K	Ball		
U	Recirculating		
V	Design Series	1000	Length In mm
S	Single Bearing Unit		
TKVD	Rail Series		

## LF Carriages &amp; Rails

Prefix	Definition	Suffix	Definition
LF	System Type	4 Concentric Screws	Not adjustable
K	<b>Design Configuration</b>	NZZ	<b>Rail Configuration</b>
	K: Wrap Around Style, with Front & Longitudinal Wipers		C: Hollow
	C: Hollow— Standard		F: Flat
	D: Bogey Type (To be used in Curved rails) or two rollers/Cartridge		N, NZZ: T-Bolt Mounting
	E: Single roller cartridge		M: Module
			— Standard
			H: Half Rail
			R: Curved Rail
			ZZ: Wide Profile
L	Carriage		
	K: Cartridge	1000	Length In Millimeters
S	Denotes rail only		



## INA

## Metric Housing Units

Prefix	Definition	Suffix	Definition
K	Ball		Seals
T	<b>Number of Bearings Housing</b>	PP	P: One Seal
	T: 2		PP: 2 Seals — No Seals
	G: 1		

## Inch Bearings &amp; Housing Units

Prefix	Definition	Suffixes	Definition
K	Ball		Bearing Configuration
B	<b>Bearing Design</b>	OP	OP: Open
	B: Solid Metal Outer		ADJ: Adjustable— Closed
	N: Self Aligning		
G	G: Housing	PP	Seals
	T: Tandem		P: One Seal
	Twin Bearing in Housing		PP: 2 Seals— No Seals
Z	Inch Dimension		

## Shafts (Metric &amp; Inch)

Prefix	Definition	Suffixes	Definition
W	Shaft		Tolerance Class
H	<b>Shaft Series</b>	J5	— h6
	M: Metric		Material
	Z: Inch	SS	— Induction, Hardened Steel, SS: Stainless Steel
	H: Hollow, Metric	1000	Length In mm or inches



## INA

## Support Rails (Metric &amp; Inch)

Prefix	Definition	Suffix	Definition
TS	Shaft Support Rail		Overall Length
W	<b>Rail Configuration</b>	1000	In mm For Metric Series, Inch For Inch Series
	W: Standard Height		
	N: Full Profile Body		
	S: Flange (Side) Mount		
W	U: Low Profile (Bottom) Mount	1000	In mm For Metric Series, Inch For Inch Series
	Assembly With Shaft		
	W: With Shaft		
A	— Rail Support Only	1000	In mm For Metric Series, Inch For Inch Series
	Configuration		
	A: Narrow Body— Standard Body		
A	Z: Inch Dimension	1000	In mm For Metric Series, Inch For Inch Series

## Metric Ball Bushings

Prefix	Definition	Suffixes	Definition
K	Ball		Seals
B	<b>Bearing Design</b>	PP	P: One Seal, PP: 2 Seals, — No Seals
	B: Solid Metal Outer, Ground		
	N: Self Aligning		
	H: Light Series, Drawn Shell Type		
O	Bearing Configuration	PP	P: One Seal, PP: 2 Seals, — No Seals
	O: Open		
	S: Adjustable— Closed		



## INA

## Planetary Roller Screws

Prefix	Definition	8	2	100	/150	Suffixes	Definition
RGT	Planetary Roller Screw	Screw Pitch Diameter	Screw Lead	Usable Stroke Length	Overall Screw Length	R	Right Hand Thread Quality Class
L	<b>Series</b>	In Millimeters	In Millimeters	In Millimeters	In Millimeters		
	L: Light—Standard						KL10
	Nut Configuration						
B	B: Solid Nut—Standard, Split Nut						

## Drawn Shell Needle Bearings

Inch Series	SCE, BCE, SCH, BCH, SN, CS, CSN		
Metric Series	HK, BK		
Prefix	Definition		Suffix      Definition
SCE	Standard Series, Caged, Open End		RS      Seal, Metric
BCE	Standard Series, Caged, Closed End		2RS      2 Seals, Metric
SCH	Heavy Series, Caged, Open End		P      Seal, Inch
BCH	Heavy Series, Caged, Closed End		PP      2 Seals, Inch
<b>S</b>	Standard, Series, Full Complement, Mechanically Retained, Open End		AS1      Oil Hole
			RR      Corrotect Plated
SN	Standard Series, Full Complement, Grease Retained, Open End		
CS	Standard Series, Full Complement, Mechanically Retained, Closed End		
CSN	Standard Series, Full Complement, Grease Retained, Closed End		
HK	Metric Series, Caged, Open End		
BK	Metric Series, Caged, Closed End		



## INA

## Cage and Roller Assemblies

Metric Series	K, KZK, KBK		
Prefix	Definition	Suffix	Definition
K	<b>Metric</b>	ZW	2 Roller Rows
<b>KZK</b>	Metric, Crank	AG	Silver Plated
KBK	Metric, Wrist	A,B	Design Variation
		TN	Plastic Cage

## Unit Cages Inch Series

Prefix	Definition
C	Unit Cage

## Radial Needle Bearings Without Ribs - Metric Series

Prefix	Definition	Suffix	Definition
NAO	With Inner Ring	TN	Plastic Cage
<b>RNAO</b>	<b>Without Inner Ring</b>		

## Precision Ground Needle Bearings - Metric ISO Series

Prefix	Definition	Suffix	Definition
NA	Metric	P	Precision Class
RNA	<b>Metric, No Inner Ring</b>	C	Clearance Group
		RR	Corrotect Plated
		ISR	Inner Ring Oil Groove & Hole
		S	Heat Stabilized





## INA

## Precision Ground Bearings - Inch Series

Prefix	Definition
NCS	Precision Ground Needle Bearing

## Precision Ground Radial Needle Bearings - Metric Series

Prefix	Definition	Suffix	Definition
NK	No inner ring, Light series		
NKS	<b>No Inner ring, Heavy Series</b>	TN	Plastic Cage
<b>NKI</b>	With Inner Ring, Light Series		
NKIS	With Inner Ring, Heavy Series		

## High Precision Bearings - Axial Angular Contact Ball Bearing And Needle Roller/Axial Cylindrical Roller Bearings - Metric

Prefix	Definition	Suffixes	Definition
ZKLN	Axial Angular Contact Ball Bearing, Double Direction	ZKL Suffixes	
		2RS	Two Contact Seals
ZKLF	Axial Angular Contact Ball Bearing, Outer Ring Suitable for Flange Mounting	2Z	2 Gap Seals
<b>ZARN</b>	Needle Roller/Axial Cylindrical Rollers Double Direction	2AP	Matched Pairs For
			4 Ball Row
			Economy Version, P5 Runout
ZARF	Needle Roller/Axial Cylindrical Rollers Double Direction, Outer Ring Suitable For Flange Mounting	PE	
		ZAR Suffixes	
		TN	Plastic Cage
DKLFA	Axial Angular Contact Ball Bearing, 3 Row, Double Direction, With Flange	L	Stepped Extended Shaft Washer On 1 Side
		PE	Economy Version, P5 Runout



## INA

## ZARF Combination Seals Metric Series

Prefix	Definition
DRS	Seal Ring Kit For Use With ZARF Series Bearing

## Locknuts Metric Series

Prefix	Definition
ZM	Precision Locknut With Locking Pegs, Set Screws With Radial Tightening
ZMA	<b>Heavy Series Of ZM</b>
AM	Precision Locknut With Locking Segments, Set Screws With Axial Tightening

## Combination Radial Needle Bearing Metric Series

Prefix	Definition	Suffix	Definition
NX	Axial Banded Ball With Needle Radial	TN	Plastic Cage For NX & NKX Series
NKX	<b>Axial Three Piece Ball With Needle Radial</b>	Z	Grease Shield Or Retaining Cap
NKXR	Axial Needle Roller With Needle Radial		

## Crossed Roller Bearings Metric Series

Prefix	Definition	Suffix	Definition
SX	Type Of Bearing	**	Shaft per ISO Standards, in mm /6, /8 – 6, 8 mm 00, 01, 02, 03 = 10, 12, 15, 17 mm 04 – 10 = Number x 5

## Machine Tool Turntable Bearings Metric Series

Prefix	Definition
YRT	Combination of two axial needle roller bearings and one cylindrical radial bearing
ZKLDF	<b>2 Row, 60 Contact Angle, Ball Type</b>



### Drawn Cup Roller Clutches And Bearing Assemblies

Prefix	Definition	Suffix	Definition
HF	Drawn Cup Roller Clutch Metric	None	Stainless Steel Springs
		KF	Plastic Springs
<b>HFL</b>	Drawn Cup Roller Clutch & Bearing Assembly, Metric		
HFZ	Drawn Cup Roller Clutch Inch	R	Partially Knurled Outer Ring For Assembly In Plastic Housing
HFLZ	Drawn Cup Roller Clutch & Bearing Assembly, Inch		

### Cylindrical Roller Bearings Metric Series

Prefix	Definition	Suffix	Definition
SL01	2 Row Fixed	BR	Black Finished
SL02	<b>2 Row Float</b>	RR	Corrotect Coated
SL04	2 Row Fixed	C#	Radial Internal Clearance
SL05	2 Row Fixed	P#	Increased Accuracy
SL06	2 Row Float	P or PP	One or Two Seals
SL11	3 Row Fixed		
<b>SL12</b>	4 Row Fixed		
SL14	3 Row Fixed		
SL15	3 Row Float		
SL18	1 or 2 Row Semi-Fixed		
SL19	1 Row Semi-Fixed		
LSL19	1 Row Semi-Fixed		
RSL18	SL 18 Without Outer Ring		



## INA

## Bearing Housings Metric Series

Prefix	Definition
GG 51	Plummer Block Housing
FG	<b>Flanged Housing</b>

## Permaglide Plain Bearings

Prefix	Definition	Suffix	Definition
PAP	Metric, Radial Plain Bearing	P10	Steel Backing, Maintenance-Free
		P11	Bronze Backing, Maintenance-Free
		P20	Low-Maintenance, Lube Pockets
PAPZ	Inch, Radial Plain Bearing	P10	Steel Backing, Maintenance-Free

## Permaglide Flanged Plain Bearings

Prefix	Definition	Suffix	Definition
PAF	Metric, Flanged Plain Bearing	P10	Steel Backing, Maintenance-Free

## Permaglide Thrust Washers

Prefix	Definition	Suffix	Definition
PAS	Metric, Strip	P10	Steel Backing, Maintenance-Free
		P11	Bronze Backing, Maintenance-Free
		P20	Low-Maintenance, Lube Pockets
		P21	Low-Maintenance, Lube Pockets Machining Allowance
		P22	Low-Maintenance, Machining Allowance



## Elges Spherical Plain Bearings Maintenance Required

Prefix	Definition	Suffix	Definition
GE	Spherical Plain Bearing	D	Standard Metric
		F	Wide Inner Ring
		L	Inner Ring Extended On Both Sides
		H	Inner Ring Extra Extended On Both Sides
		Z	Standard Inch Sizes
		PB	Steel/Bronze Sliding Surface Bronze Outer Ring Pressed Around Inner Ring
		O	Steel/Steel Sliding Surfaces, Single Axial Split In Outer Ring
		2RS	2 Seals

## Elges Spherical Plain Bearings Maintenance Free

Prefix	Definition	Suffix	Definition
GE	Spherical Plain Bearing	Radial Bearings	
		UK	Chrome/PTFE Sliding Surfaces, Outer Split Axially
		DW	Chrome/PTFE Sliding Surfaces, Outer Split Axially
		FW	Chrome/PTFE Sliding Surfaces, Wide Inner Ring, Larger Tilting Angle
		PW	Steel/PTFE sliding Surfaces, Outer Bronze Ring, Pressed Around Inner Ring
		SW	Angular Contact, Chrome/PTFE Sliding Surfaces,
		AW	Axial, Chrome/PTFE Sliding Surfaces
		2RS	2 Seals

## INA

### Elges Rod Ends DIN648 Series E

Prefix	Definition	Suffix	Definition
GI	External Threads	Rod End Bearings	
GA	<b>Internal Threads</b>	DO	Steel/Steel Sliding Surfaces, Requires Maintenance
<b>##R</b>	Right Hand Threads		
<b>##L</b>	Left Hand Threads		
		UK	Chrome/PTFE Sliding Surfaces Maintenance Free
		2RS	2 Seals

### Elges Hydraulic Rod Ends

Prefix	Definition	Suffix	Definition
GIHN	Internal Thread Rod End per DIN 24338	DO	Using GE..DO, Standard Inner Width
GIHO	<b>Internal Threads per DIN 24555</b>	LO	Using GE..LO, Extended Inner Ring
<b>GIHR</b>	Short Internal Threads, (Reduce Length Style)		
- K	Thread Clamping By Two Hex Socket Screws Arranged On Either Side Of The Thread		

### Elges Hydraulic Rod Ends

Prefix	Definition	Suffix	Definition
GK	Circular Welding Face, With Centering Pin In Shank Bottom	Rod End Spherical Bearing	
<b>GF</b>	Rectangular Welding Face	DO	Steel On Steel Sliding per Series E DIN648

### Cam Followers - Yoke Type Track Rollers Without Axial Guidance

Prefix	Definition	Suffix	Definition
		X	Cylindrical Outer Surface
RSTO	Metric, Needle Roller, Outer Ring Without Ribs, Without Inner Ring	TN	Plastic Cage
		P	Precision Class
STO	Metric, Needle Roller, Outer Ring Without Ribs, With Inner Ring		



## INA

## Cam Followers - Yoke Type Track Rollers With Axial Guidance

Prefix	Definition	Suffix	Definition
NUTR	Metric, Cylindrical Roller, Axial Guidance By Rolling Elements, Full Complement, Labyrinth Seals, With Inner Ring	X	Cylindrical Outer Surface
		P	Precision Class
PWTR	Metric, Cylindrical Roller, Axial Guidance By Rolling Elements, Full Complement, Contact Seals, With Inner Ring		

## Cam Followers - Yoke Type Track Rollers Without Axial Guidance/Sealed

Prefix	Definition	Suffix	Definition
RNA 22	Metric, Needle Roller, Without Inner Ring	2RS	Sealed On Both Sides
		X	Cylindrical Outside Surface
NA 22	Metric, Needle Roller, With Inner Ring	P	Precision Class

## Cam Followers - Yoke/Stud Type Cam Followers Inch Series

Prefix	Definition	Suffix	Definition
RF	Full Complement, Yoke Type	None	Gap Seals
CF	<b>Full Complement, Stud Type</b>	PP	Contact Seals
E	Eccentric Sleeve	SK	Hexagonal Socket
		Y	Crowned OD

## Stud Type Cam Followers Needle &amp; Cylindrical Roller Type Element

Prefix	Definition	Suffix	Definition
KR	Metric, Axial Guidance By Rib & Washer, Gap Seals	PP	Sealing Rings (KR, KRV Only)
		X	Cylindrical Outer Surface
		SK	Hexagonal Socket In End Of Stud
KRV	Metric, Axial Guidance By Rib & Washer, Full Complement, Labyrinth Seals	P.	Precision Class
		2RS	Contact Seals (PWKR Only)
NUKR	Metric, Axial Guidance By Rolling Elements, Full Complement, Labyrinth Seals		
PWKR	Metric, 2 Row Cylindrical Roller, Full Complement, With Contact Seals		



## INA

### Thrust Bearings Metric Series

Prefix	Definition
900	Medium Series, 3 Piece Ball
1000	Heavy Series, 3 Piece Ball
2900	Light Series, 3 Piece Ball
3900	Medium Series, 3 Piece Ball
51100	Light Series, 3 Piece Ball
1900	Medium Series, Double Direction Ball
500	Heavy Series, Double Direction, Self Aligning
3700	Medium Series, Double Direction, Self Aligning
4100	Medium Series, Double Direction, Self Aligning
800	Medium Series, Double Direction Ball

### Thrust Bearings Metric ISO Series 5 Digit Numbers

Prefix	Definition
5	Ball Thrust Bearing
6	Radial Ball Bearing
7	Angular Contact Bearing
8	Roller Thrust Bearing

### Andrews Ball Thrust Bearings Metric Series

Prefix	Definition
DL	Light Series, 3 Piece Ball
DM	Medium Series, 3 Piece Ball



**INA****Andrews Ball Thrust Bearings Inch Series**

Prefix	Definition
EW	Light Series, Flat Race Ball
W	Standard, Grooved Race Ball
HW	Heavy Series, Grooved Race Ball
MW	Medium Series, Grooved Race Ball
XW	Extra Light Series, Grooved Race Ball

**Andrews Thrust Bearings Inch Series**

Prefix	Definition
FT	Flat Race Ball
D	Banded Ball
B	Thin Banded Ball
GT	Grooved Race Ball
RTL	Cylindrical Roller
44XX	Heavy Series Grooved Race Ball

**Bearing Washer Metric Series**

Prefix	Definition
AS	1 mm Thick
LS	Bearing Washer, Lower Accuracy
ZS	Center Washer, For Double Direction Bearing Combinations

**Axial Needle Cage and Roller Assemblies Metric Series**

Prefix	Definition	Suffix	Definition
AXK	Needle Rollers & Cage	TN	Plastic Cage



## INA

## Bearing Washers Metric Series

Prefix	Definition
GS	Housing Washer ISO Series 11, 12, 74, 93, 94
WS	Shaft Washer ISO Series 11, 12, 74, 93, 94

## Roller Thrust Inch Series

Prefix	Definition
RT	Cylindrical Roller Thrust
RTW	Self Aligning Cylindrical Roller Thrust

## Piloted Axial Needle/Cylindrical - Bearings Metric Series

Prefix	Definition	Suffix	Definition
AXW	Needle Rollers & Cage Assembly & AS Washer With Centering Spigot	TN	Plastic Cage

## Axial Needle/Cylindrical Cage and Roller Assemblies Metric Series

Prefix	Definition	Suffix	Definition
K811 &	Cylindrical Rollers,		
K812	<b>ISO Series 1&amp;4, Single Row</b>		
<b>K874</b>	Cylindrical Rollers,	TN	Plastic Cage
	ISO Series 4, Multi Row		
K893 &	Cylindrical Rollers, ISO Series 4, Multi Row		
K894	ISO Series 3&4, Double Row		

## Axial Needle/Cylindrical Cage and Roller Assemblies Inch Series

Prefix	Definition
TC	Needle Rollers & Cage



## INA

## Special Dimension Andrews Thrust Bearings Inch Series

Series	Definition
X	Three Piece Ball Bearing With Grooved Race
Y	Outside Banded Ball Bearing
Z	Inside Banded Ball Bearing
P	Three Piece Ball Bearing With Flat Races
RT	Cylindrical Roller Thrust
J	Pressed Steel Retainer
N	Nylon Retainer
RR	Radial Roller
BR	Radial Ball
RRT	Radial Roller Thrust

## Bearing Washers Inch Series

Prefix	Definition
TWA	.030-.032 Inch
TWB	.060-.063 Inch
TWC	.092-.095 Inch
TWD	.123-.126 Inch

## Axial Cylindrical Bearing Metric Series (811, 812, 893, 894, 874)

8	11	ISO Shaft Standards		Suffix	Definition
8##	1st Digit	ISO Width Series	OO	10 mm Shaft	Plastic Cage (Poly-amid 66 Cage)
	2nd Digit	ISO Diameter Series	O1	12 mm Shaft	
			O2	15 mm Shaft	
			O3	17 mm Shaft	
			O4<	1/5 Shaft In mm	
K8## Cage & Roller Assembly Plus GS & WS Washers					



## INA

## Radial Ball Bearings - Insert Bearings

Prefixes	Definition	Suffixes	Definition
Basic Series & Additional Features		Internal Construction	
E	<b>Metric Bore</b>	K	Conrad, Non-Filling Slot Type
G	Relubricable	Additional Features	
1	Standard Series (200 Series Bearings Inch)	NPP	Two Seals (Non-Preloaded)
		RR	Two Land Riding Rubber Seals
RA	Extended Inner Ring, One Side Only	B	Spherical Outside Diameter
		CC	Zinc Plated Flingers
Y, AY	Set Screw Locking Device Series		

## Radial Ball Bearings - Housing Units

Prefixes	Definition	Suffixes	Definition
Bearing Seal Type		Locking Device	
P	<b>NPP Type Economy Seal</b>	Blank	Eccentric Locking collar
R	KRR Type Preloaded Seal	Y	Set Screw
Housing Type		Numbers	
ASE	Standard Height Pillow Block	Shaft	Fractional Inches or Millimeters

## Radial Ball Bearings - Idler Sprocket

Suffixes	Definition	Suffixes	Definition
LO	Inner Ring Extended Both Sides	Material Code	
BO	<b>Eccentric Locking Collar Inner Ring Extended One Side</b>	15	Material – Steel St 52, Tooth Flanks – Unhardened
KO	Inner & Outer Ring Flush	O8	Material – Sintered Iron C 10, Tooth Flanks – Unhardened HB 50±5
		16	Material – Steel c 45, Tooth Flanks – Hardened HRc 50±5
		O9	Material – Sintered Iron D 30, Tooth Flanks – Hardened HB 125±5
		22	Material – Plastic PA, Tooth Flanks – N/A

**KAYDON****REALI-SLIM Bearings - Part Number Code Example**

Position	1	2	3 4 5	6	7	8	9
Nomenclature	Material	Series	Size	Type	Separator	Precision	Internal
Typical Part No.	<b>K</b>	<b>G</b>	<b>1 2 0</b>	<b>X</b>	<b>P</b>	<b>0</b>	<b>L</b>

**Metric Thin-Section Bearings**

Position	1	2 3 4	5 6	7	8	9	10
Nomenclature	Material	Bore (mm)	Width (mm)	Type	Separator	Precision	Internal Fit
Example	<b>K</b>	<b>0 8 0</b>	<b>0 8</b>	<b>X</b>	<b>P</b>	<b>0</b>	<b>K</b>

**Explanation of Position numbers:**

1)  K=52100 steel S= 440C stainless N= Endurakote	7)  X: Four-point contact X: Four-point contact C: Radial Contact	8)  P = Standard formed ring snap-over type R = Standard formed ring Circular pocket type
9)  0 = Precision Class 1 (ABEC 1F) Standard	10)  empty = Standard A = .0000 to .0005 K = .0000 to .0005 L = .0000 to .0010 Z = special clearance or preload	Clearance Preload Preload

**KAYDON****Ultra-Slim - Thin-Section Bearings**

Position	1	2 3 4	5 6	7	8	9	10
Nomenclature	Material	Bore Size in mm	Radial Section in mm	Type	Separator	Precision	Internal Fit
Typical Part No.	<b>S</b>	<b>1 1 0</b>	<b>0 3</b>	<b>C</b>	<b>S</b>	<b>0</b>	<b>K</b>

**Explanation of Position numbers:**

Position 1 – Material	Position 2,3 and 4 Bore
S= 440C races and balls (Standard for Series) K= 52100 races and balls	Nominal bearing bore in mm
Position 8 Separator	Position 9 Precision
S = Spacer balls F = Full Complement of load balls	0 = Kaydon standard precision class
Position 5 and 6 Width	Position 7 Bearing Type
Nominal radial race width in mm	A = Angular Contact C = Radial Contact X = 4 point Contact
Position 8 Separator	Position 9 Precision
S = Spacer balls F = Full Complement of load balls	0 = Kaydon standard precision class
Position 10 Internal Fit	
A = 0.000-0.130mm clearance C = 0.013-0.025mm clearance E = 0.025-0.510mm clearance K = 0.000-0.013mm preload M = 0.013-0.025mm preload = standard internal fitup if not specified	



## KOYO

## KOYO BEARINGS

Prefix	Suffix	Definition
A		Adapter sleeve (sleeve only).
	A	Duplex bearing with inner and outer ring spacers, no lubrication hole or groove on either spacer.
	A	Angular contact ball bearing, 30° contact angle, (not indicated).
	A	Tapered roller bearing, double row, wide type, metric.
	a	Non-standard chamfer, larger than standard.
AC		Angular contact ball bearing, single row, non-standard. Dimensions, OD 100mm and over.
2AC		Angular contact ball bearing, double row, non-standard. Dimensions, OD 100mm and over.
ACA		Angular contact ball bearing for handle fork.
ACS		Thrust angular contact ball bearing for steering.
AH & AHX		Withdrawal sleeve.
	AJ	Ball bushing, adjustable inscribed diameter.
AL		Lock plate, for AN00 series lock nut.
ALL		Lock plate, for ANL00 series lock nut.
ALS		Angular contact ball bearing, inch, light series.
AMS		Angular contact ball bearing, inch, medium series.
AN		Lock nut.
ANL		Lock nut, (small OD series for inch thin section bearings).
AOH		Withdrawal sleeve, with lubrication hole.
AT		Thrust cylindrical roller bearing, single direction.
AW		Lock washer.
AWL		Lock washer, (small OD series for thin section bearings).



## KOYO

## KOYO BEARINGS

B	Drawn cup needle roller bearing, full complement open end, no inner ring, inch, standard roller size.
B	Angular contact ball bearing, 40° contact angle.
B	Tapered roller bearing, with flange cup.
B	Duplex bearing with inner and outer ring spacers, lubrication hole and groove on inner ring spacer only.
B	Spherical roller thrust bearing with pressed retainer.
BH	Drawn cup needle roller bearing, full complement, open end, no inner ring, inch large roller size.
BHM	Drawn cup needle roller bearing, full complement open end, no inner ring, metric, large roller size.
BHT	Drawn cup needle roller bearing, with cage, open end, no inner ring, inch, large roller size.
BHTM	Drawn cup needle roller bearing, with cage, open end, no inner ring, metric, large roller size.
BI	Ball bearing, two-piece inner ring.
BM	Drawn cup needle roller bearing, full complement, open end, no inner ring, metric, standard roller size.
BM	Magneto ball bearing, old type.
BO	Magneto ball bearing, old type.
BO	Ball bearing, two-piece outer ring.
BR	Drawn cup needle roller bearing, full complement, complete with separable inner ring, inch, (combination of B type and IR type inner ring), old type.
BR	Water pump bearing, ball-roller type.
BRA	Drawn cup needle roller bearing, full complement, complete with wide separable inner ring, inch (combination of B type and IRA type outer ring), old type.
BT	Drawn cup needle roller bearing, with cage, open end, no inner ring, inch, standard roller size.
BTM	Drawn cup needle roller bearing, with cage, open end, no inner ring, metric, standard roller size.





## KOYO

## KOYO BEARINGS

C	Accessory for cylindrical roller bearing (or bearing itself).
C	Needle roller bearing, induction hardened, material JIS S50C.
C	Duplex bearing, with inner and outer ring spacers, lubrication hole and groove on both inner and outer ring spacers.
C	Tapered roller bearing, with dowel hole.
C	Angular contact ball bearing, 15° contact angle.
C	Tapered roller bearing, intermediate contact angle (17° ~ 24°).
C	Farm equipment ball bearing, with cylindrical OD.
45C	Duplex tapered roller bearing, face-to-face mounting.
46C	Duplex tapered roller bearing, back-to-back mounting.
C1	Radial internal clearance, smaller than C2.
C2	Radial internal clearance, smaller than standard.
C3	Radial internal clearance, larger than standard.
C4	Radial internal clearance, larger than C3.
C5	Radial internal clearance, larger than C4.
CL	Clutch release bearing, with clip spring.
CM	Cam follower, metric.
CM	Special radial internal clearance, for electric motor bearing, (non-interchangeable for cylindrical roller bearing).
CO	Angular contact roller bearing, 15° contact angle, cage centered (guided) by outer ring, separable inner ring.
CP	Cage code, copper plated.
CR	Cam follower, inch.
2CR	Cylindrical roller bearing, double row, non-standard dimensions, to be superseded by “DC”.
3CR	Cylindrical roller bearing, three row, to be superseded by “TC”.



## KOYO

## KOYO BEARINGS

4CR	Cylindrical roller bearing, four row, to be superseded by “FC”.
4CRI	Inner ring for four row cylindrical roller bearing.
CRL	Cylindrical roller bearing, single row, inner ring ribbed both sides, outer ring without rib, inch, light series.
CRM	Cylindrical roller bearing, single row, inner ring ribbed both sides, outer ring without rib, inch, medium series.
4CRO	Outer ring for four row cylindrical roller bearing.
CS	Special radial internal clearance, followed by mean value of clearance in 0.001mm.
CT	Clutch release bearing, outer ring with integral flat thrust face.
CT	Special radial internal clearance, for electrical motor cylindrical roller bearing (non-inter-changeable).
CTH	Clutch release bearing, outer ring with integral flat thrust face, integral inner ring with fork groove.
CTS	Clutch release bearing, combination of radial ball bearing, flat thrust plate and shield.
CX	Special radial internal clearance.
D	Tapered roller bearing, inch, double cup or double cone.
D	Tapered roller bearing, metric, steep contact angle (24° ~ 32°).
DD	Tapered roller bearing, inch, extra wide double cup or double cone.
45D	Four row tapered roller bearing, two double cones, and four single cups.
46D	Four row tapered roller bearing, four single cones and two double cups.
d	Special inner ring bore.
d1	Water pump bearing, shaft diameter 0.013mm oversize.
d2	Water pump bearing, shaft diameter 0.025mm oversize.
d3	Water pump bearing, shaft diameter 0.038mm oversize.
d4	Water pump bearing, shaft diameter 0.051mm oversize.
d5	Water pump bearing, shaft diameter 0.063mm oversize.



## KOYO

## KOYO BEARINGS

d6	Water pump bearing, shaft diameter 0.076mm oversize.
DAC	Angular contact ball bearing, double row, non-standard dimensions, OD less than 100mm.
DACF	Hub-units bearing.
DB	Duplex angular contact ball bearing, back-to-back mounting.
DBD	Triplex angular contact ball bearing, a combination of back-to-back and tandem mountings.
DC	Cylindrical roller bearing, double row, non-standard dimensions.
DC	Tapered roller bearing, double row, inch, dowel hole on double cup.
DDG	Deep groove ball bearing, double row, non-standard dimensions, OD less than 100mm.
DF	Duplex angular contact ball bearing, face-to-face mounting.
DFD	Triplex angular contact ball bearing, a combination of face-to-face and tandem mountings.
DG	Deep groove ball bearing, single-row, non-standard dimensions, OD less than 100mm.
DT	Duplex angular contact ball bearing, tandem mounting.
DTB	Thrust ball bearing, double direction, non-standard dimensions and/or features.
DTD	Triplex angular contact ball bearing, tandem mounting.
DTH	Slewing rim thrust ball bearing, double row, angular contact.
2DTH	Slewing rim thrust ball bearing, four row, angular contact.
DTR	Slewing rim thrust cylindrical roller bearing, double row.
E	Magneto ball bearing, OD plus side tolerance.
E	Angular contact ball bearing, 35° contact angle.
E	Ring material code, SAE8620.
EA	Magneto ball bearing, old type.
EG	Needle roller bearing, machined ring, full complement, Separable parts, metric.
EGS	Cam roller.



## KOYO

## KOYO BEARINGS

EE	Miniature and small diameter ball bearing, deep groove, inch, extra light duty.
EE	Tapered roller bearing, inch.
EH	Tapered roller bearing, inch, extra heavy series.
EL	Tapered roller bearing, inch, extra light series.
EN	Magneto ball bearing, OD minus side tolerance.
F	Deep groove ball bearing, with flange, metric.
F	Ring material code, SAE4320 or SAE4322S
FC	Cylindrical roller bearing, four row.
FC	Cage code, machined, made of JIS S25CF (carbon steel for machine structural use), (not included in basic bearing number).
FG	Cage code, molded, made of Nylafil, (not included in basic bearing number).
FM	Cage code, machined, made of JIS FCD40 (spheroidal graphite iron casting), (not included in basic bearing number)
FN	Cage code, molded, made of polyacetal.
FP	Cage code, machined, made of JIS S25CF (carbon steel for machine structural use), pin type, (not included in basic bearing number).
FR	Cage code, machined, made of JIS HBSC-R (high tension brass), (not included in basic bearing number).
FS	Ball bearing with steel cover sealed by felt.
FS	Cage code, machined, made of JIS S25CF (carbon steel for machine structural use), (not included in basic bearing number).
FT	Cage code, machined, made of phenolic resin, (not included in basic bearing number).
FY	Cage code, machined, made of JIS HBSC-S (high tension Brass), (not included in basic bearing number).
G	Drawn cup needle roller bearing, precision grade.
G	Spherical and tapered roller bearings, reduced end play tolerance.
GP	Cage code, silver plated.



## KOYO

### KOYO BEARINGS

G2	Angular contact ball bearing, flush ground for 10 kg preload.
G5	Angular contact ball bearing, flush ground for 25 kg preload.
G10	Angular contact ball bearing, flush ground for 50 kg preload.
G20	Angular contact ball bearing, flush ground for 100 kg preload. (washer), metric.
H	Tapered roller bearing, inch, heavy series.
H	Water pump bearing, with hole on the outer ring.
H	Ring material code, SAE9310.
HA	Adapter (complete with lock nut, lock plate or lock washer), inch, 1/16" series.
HE	Adapter (complete with lock nut, lock plate or lock washer), inch, 1/4" series.
HH	Tapered roller bearing, inch, heavy-heavy series.
HI-CAP	Tapered roller bearing, Koyo HI-CAP type.
HM	Tapered roller bearing, inch, heavy-medium series.
HN	Nut for withdrawal sleeve, metric.
HNL	Nut for withdrawal sleeve, metric, (small OD series for thin section bearings).
HS	Adapter (complete with lock nut, lock plate or lock washer), inch, 1/8" series.
I	Spherical roller bearing, mainly for ball or tube mill trunnion.
IB	Integral shaft bearing, soft shaft ends.
IP	Cage code, silver plated with addition of indium plating.
IR	Inner ring for needle roller bearing, inch.
IRA	Inner ring for needle roller bearing, inch, wider than IR series.
IRM	Inner ring for needle roller bearing, metric.
IS	Water pump bearing, whole shaft surface induction hardened.
IT	Water pump bearing, shaft raceways only induction hardened.



## KOYO

## KOYO BEARINGS

J	Tapered roller bearing, metric.
J	Tapered roller bearing, to ISO subunit, metric.
JB	Ball bearing for railway rolling stock journal.
JC	Cylindrical roller bearing for railway rolling stock journal.
JS	Spherical roller bearing for railway rolling stock journal.
JT	Tapered roller bearing for railway rolling stock journal.
K	Bearing with tapered bore, 1/12.
K30	Bearing with tapered bore, 1/30.
K-B	Airframe ball bearing.
KBI	Three or four point contact ball bearing.
KC	Needle roller bearing for universal joint.
KHRS	Cam follower for airframe.
KP	Airframe ball bearing.
L	Tapered roller bearing, inch, light series.
L	Magneto ball bearing, old type.
L	Water pump bearing, shaft material SAE5120.
L	Ball bushing, non-standard dimensions.
LA	Loose needle roller, spherical end.
LC	Loose needle roller, trunnion end.
LC	Ball bearing with steel cover with lubrication fitting.
LC	Cage code, machined, made of JIS S25CF (carbon steel for machine structural use), rivet-less type, (not included in basic bearing number).
LF	Loose needle roller, flat end.
LK	Lubrite bearing.

**KOYO****KOYO BEARINGS**

LL		Tapered roller bearing, inch, light-light series.
LM		Tapered roller bearing, inch, light-medium series.
	LP	Cage code, zinc plated.
LR		Loose needle roller, ball end.
	LR	Cage code, machined, made of JIS HBSC-R (high tension brass), rivetless type, (not included in basic bearing number).
LT		Loose needle roller, conical end.
	LY	Cage code, machined, made of JIS HBSC-S (high tension brass), rivetless type, (not included in basic bearing number).
M		Magneto ball bearing, old type.
M		Maximum capacity type ball bearing.
M		Drawn cup needle roller bearing, full complement, closed end, no inner ring, inch, standard roller size.
M		Tapered roller bearing, inch, medium series.
	M	Ball or cylindrical roller bearing for electric motor.
	M	Ring material code, JIS SCM4
	M2	Cylindrical roller bearing, with drop cage.
MB		Magneto ball bearing, non-standard, OD less than 100 mm.
MH		Drawn cup needle roller bearing, full complement, closed end, no inner ring, inch, large roller size.
MHM		Drawn cup needle roller bearing, full complement, closed end, no inner ring, metric, large roller size.
MHK		Drawn cup needle roller bearing, with cage, closed end, no inner ring, inch, large roller size.
MHKM		Drawn cup needle roller bearing, with cage, closed end, no inner ring, metric, large roller size.
MK		Drawn cup needle roller bearing, with cage, closed end, no inner ring, inch, standard roller size.



## KOYO

## KOYO BEARINGS

MKM		Drawn cup needle roller bearing, with cage, closed end, no inner ring, metric, standard roller size.
ML		Miniature ball bearing, deep groove, light series, metric.
MM		Drawn cup needle roller bearing, with cage, closed end no inner ring, metric, standard roller size.
	MM	Cage code, made of S-Monel.
	MN	Cage code, made of nylon.
	MS	Cage code, machined of JIS HBSC-S (high tension brass), stay type, (not included in basic bearing number).
MS		Needle roller bearing.
N		Cylindrical roller bearing for conveyor.
N		Cylindrical roller bearing, single row, outer ring without
	N	Ring material code, JIS SNCM9. requirements.
	N	Bearing with snap ring groove.
NA		Tapered roller bearing, double row, inch, one double cup, two single cones, usually with cone spacer, end play preadjusted, reduced overall width tolerance.
NA		Long cylindrical roller bearing, outer ring ribbed both sides.
NA		Needle roller bearing, machined ring, outer ring ribbed both sides, separable inner ring, with cage, metric, to JIS.
	NA	Cylindrical roller bearing, non-inter-changeable radial internal clearance.
NF		Cylindrical roller bearing, single row, outer ring ribbed one side, inner ring ribbed both sides, metric.
NH		Cylindrical roller bearing, single row, outer ring ribbed both sides, inner ring ribbed one side with angle ring on the other side, metric.
NHT		Cylindrical roller bearing, single row, outer ring ribbed one side with side ring on the side, inner ring ribbed one side and with angle ring on the other side, metric.
NJ		Cylindrical roller bearing, single row, outer ring ribbed both sides, inner ring ribbed one side metric.



**KOYO****KOYO BEARINGS**

NN	Cylindrical roller bearing, double row, outer ring with/out rib, inner ring three ribbed, metric.
NNF	Cylindrical roller bearing, double row, outer ring ribbed one side, inner ring three ribbed, metric.
NNJ	Cylindrical roller bearing, double row, outer ring three ribbed, inner ring ribbed one side, metric.
NNU	Cylindrical roller bearing, double row, outer ring three ribbed, inner ring without rib, metric.
NP	Cylindrical roller bearing, single row, outer ring ribbed one side and with ring on the other side, inner ring ribbed both sides, metric.
NQ	Needle roller bearing, machined ring, outer ring ribbed both sides, no inner ring, pressed snap-in type cage, standard roller size, metric.
NQI	Needle roller bearing, machined ring, outer ring ribbed both sides, complete with inner ring, pressed snap-in type cage, standard roller size metric.
NQIS	Needle roller bearing, machined ring, outer ring ribbed both sides, complete with inner ring, pressed snap-in type cage, large roller size, metric.
NQS	Needle roller bearing, machined ring, outer ring ribbed both sides, no inner ring, pressed snap-in type cage, large roller size, metric.
NR	Needle roller bearing, machined ring, outer ring ribbed one side and stop ring on the other side, no inner ring, R-type machined cage (W shaped), standard roller size, metric
NR	Bearing with snap ring.
NRI	Needle roller bearing, machined ring, outer ring ribbed one side and stop ring on the other side, complete with inner ring, R-type machined cage (W-shaped), standard roller size, metric.
NRIS	Needle roller bearing, machined ring, outer ring ribbed one side and stop ring on the other side, complete with inner ring, R-type machined cage (W-shaped), large roller size, metric.
NRS	Needle roller bearing, machined ring, outer ring ribbed one side and stop ring on the other side, no inner ring, R-type machined cage (W shaped), large roller size, metric.
NSS	Cylindrical roller bearing for conveyor.
NU	Cylindrical roller bearing, single row, outer ring ribbed both sides, inner ring without rib, metric.



## KOYO

## KOYO BEARINGS

NUJ	Cylindrical roller bearing, single row, outer ring ribbed both sides, inner ring with angle ring on one side, metric.
NUP	Cylindrical roller bearing, single row, outer ring ribbed both sides, inner ring ribbed one side and with side ring on the other side, metric.
NUT	Cylindrical roller bearing, single row, outer ring ribbed one side and with side ring on the other side, inner ring without rib, metric.
NV	Needle roller bearing, machined ring, outer ring ribbed one side and stop ring on the other side, no inner ring, V-type machined cage (M-shaped) standard roller size, metric
NVI	Needle roller bearing, machined ring, outer ring ribbed one side and with stop ring on the other side, complete with inner ring, V-type machined cage (M-shaped) standard roller size, metric.
NVIS	Needle roller bearing, machined ring, outer ring ribbed one side and stop ring on the other side, complete with inner ring, V-type machined cage (M-shaped), large roller size, metric.
NVS	Needle roller bearing, machined ring, outer ring ribbed one side and stop ring on the other side, no inner ring, V-type machined cage (M-shaped) large roller size, metric
NY	Bearing with nylon coating on outer ring OD.
OA	Miniature ball bearing, angular contact, inch.
OB	Radial ball bearing with self-aligning adapter.
OB	Miniature ball bearing, deep groove, inch and metric.
OBF	Miniature ball bearing, deep groove, with flanged outer ring, inch and metric.
OH	Drawn cup needle roller bearing, lubrication hole on outer ring.
OJ	Thrust ball bearing, single direction, extra deep groove.
OP	Miniature pivot bearing, pressed steel outer ring, closed end, inch.
OP	Ball bushing, open type.
OPH	Miniature pivot bearing, pressed steel outer ring, open end, inch.
OR	Ball bearing with O-ring.
OT	Miniature thrust ball bearing, single direction, grooved raceway, flat seat.
OTF	Miniature thrust ball bearing, single direction, flat raceway, flat seat.

**KOYO****KOYO BEARINGS**

OV	Miniature pivot bearing, machined outer ring, closed end, inch and metric.
P	Ball bearing for pot motor.
P	Duplex tapered roller bearing, with cup spacer only.
PA	Cage code, machined, outer ring centered (guided), for ball bearing.
PB	Cage code, machined, inner ring centered, for ball bearing.
PC	Spherical roller bearing, pressed steel cage, no retaining rib, asymmetrical rollers.
PD	Cage code, machined, ball centered (guided), for ball bearing.
PH, PH1 etc.	Tapered roller bearing, special overall width tolerance.
PL	Clutch release bearing with closed end seal.
PS	Cam follower, with packing seal.
PZ1 etc.	Non-standard tolerances.
P0	JIS tolerance class, normal class.
P4	JIS tolerance class, class 4 (closer than P5).
P5	JIS tolerance class, class 5 (closer than P6).
P6	JIS tolerance class, class 6 (closer than P0).
Q	Deep groove ball bearing, single row, 6000Q series, old type.
QB	Ball bearing for railway rolling stock drive gears.
QC	Cylindrical roller bearing for railway rolling stock drive gears.
QT	Tapered roller bearing for railway rolling stock drive gears.
Q1	Cage code, machined, outer ring centered (guided), for roller bearing.
Q2	Cage code, machined, inner ring centered (guided), for roller bearing.
Q3	Cage code, machined, roller centered (guided), for roller bearing.

**KOYO****KOYO BEARINGS**

R	Needle roller bearing, cage and roller assembly, R-type retainer (W-shaped), standard roller size, metric.
R	Special thrust roller bearing, tapered raceways, cylindrical rollers.
R	Spherical, tapered, cylindrical roller bearings and deep groove ball bearings higher load carrying capacity.
R	Water pump bearing, ball-roller type, superseded by “BR”
R	Cage code, pressed, greater thickness than standard.
R	Bearing with locating ring.
R	Farm equipment bearing, round bore.
RA	Spherical roller bearing with pressed cage.
RC	Farm equipment bearing, with cylindrical OD, BD.
r	Non-standard chamber dimension, smaller than standard.
RCT	Clutch release bearing, outer ring with integral thrust ridge
RCTH	Clutch release bearing, outer ring with integral thrust ridge, integral inner ring with fork groove.
RCTS	Clutch release bearing, combination of radial ball bearing, ridged thrust plate and shield.
RDC	ABU rotating end cap type cylindrical roller bearing.
RD	Synthetic rubber seal, one side, extra-light-contact type.
2RD	Synthetic rubber seal, both sides, extra-light-contact type.
RE	Special needle roller bearing, cage and roller assembly (separable), rollers retained by grease.
RH	Spherical roller bearing, pressed steel cage, symmetrical rollers, no inner rib cage, with center guide ring, higher capacity.
RHA	Spherical roller bearing, machined cage, symmetrical Rollers, no inner ring rib, with center guide ring, higher capacity.
RH	Ball bearing with rubber housing.
RK	Synthetic rubber seal, one side, double lip, contact type.



## KOYO

## KOYO BEARINGS

	2RK	Synthetic rubber seal, both sides, double lip, contact type.
RL		Self-aligning ball bearing, double row, inch, light series.
RLS		Deep groove ball bearing, single row, inch, light series.
RM		Self-aligning ball bearing, double row, inch, medium series.
RMS		Deep groove ball bearing, single row, inch, medium series.
RN		Cylindrical roller bearing, single row, inner ring ribbed both sides, no outer ring, metric.
RNA		Needle roller bearing, machined ring, outer ring ribbed both sides, no inner ring, metric.
RNU		Cylindrical roller bearing, single row, outer ring ribbed both sides, no inner ring, metric.
	RP	Cage code, parkerized.
RS		Needle roller bearing, cage and roller assembly, R-type machined cage (W-shaped), metric, large roller size.
	RS	Synthetic rubber seal, one side, contact type.
	2RS	Synthetic rubber seal, both sides, contact type.
	RSB	Synthetic rubber seal, one side, with extended metal shroud, contact type.
	2RSB	Synthetic rubber seal, both sides, with extended metal shroud, contact type.
	RSE	Synthetic rubber seal, one side, land riding, contact type.
	2RSE	Synthetic rubber seal, both sides, land riding, contact type.
	RSF	RS type seal made of fluoro rubber.
	RT	Cage of ball bearing, with special treatment.
RTW	(ZZ)	Special cylindrical roller bearing, single row, outer ring ribbed both sides, inner ring ribbed one side and with angle ring on the other side, with shield both sides, ring on the other side, with shield both sides, wider than NH type, for rolling stock.
	RU	Synthetic rubber seal, one side, non-contact type.
	2RU	Synthetic rubber seal, both sides, non-contact type.



## KOYO

## KOYO BEARINGS

RUW	(ZZ)	Special cylindrical roller bearing, single row, outer ring ribbed both sides, inner ring with-out rib, with shield both sides, wider than NU type, for rolling stock.
S		Ball bearing, single row, separable inner ring.
S		Water pump bearing, superseded by "WPB".
S		Angular contact ball bearing, single row, separable inner ring.
S		Thrust ball bearing with retaining shield.
	S	Farm equipment ball bearing, square bore.
	S	Tapered roller bearing, non-standard chamfer (bevel chamfer).
SA		Self-aligning ball bearing, double row, non-standard dimensions, OD less than 100mm.
SAC		Angular contact ball bearing, single row, non-standard dimensions, OD less than 100mm.
SB		Deep groove ball bearing, single row, non-standard dimensions, OD 100 mm and over.
	SB	Thrust needle roller bearing, pressed two piece cage.
SBS		Ball screw type steering unit.
SC		Cylindrical roller bearing, single row, non-standard dimensions.
	SC	Ring material code, JIS S15CK.
	SC	Farm equipment bearing, square bore, with cylindrical OD.
SCR		Cam follower, non-standard.
SD		Ball bushing.
SDK		Ball bushing, rotary type.
	SG	Tapered roller bearing, with spiral groove on cone bore.
	SH1 etc.	Non-standard heat treatment on rings and rolling elements, (on rollers only for needle roller bearing).
	SL	Water pump bearing with slinger, of which basic bearing numbers does not include slinger.
SL		Non-standard sleeve.

## KOYO

### KOYO BEARINGS

SN	Needle roller bearing, double row.
SN	Cage code, tin plated.
SP	Tolerance class, super precision class.
SPC	Triple ring bearing (double stage raceways), with spherical and cylindrical rollers.
SPS	Triple bearing (double stage raceways), with spherical rollers.
SR	Spherical roller bearing, double row, non-standard dimensions.
SR	Integral shaft bearing, with rubber housing.
2SR	Spherical roller bearing, double row, non-standard two-piece outer ring.
SS	Non-standard heat treatment for railway rolling stock bearing.
ST	Ring material code, stainless steel.
SV	Clutch release bearing with sleeve.
SZ	Bearing with sub-zero treatment.
S0	Bearing with heat resisting treatment, resistant to temperature up to 150°C.
S1	Bearing with heat resisting treatment, resistant to temperature up to 200°C.
S2	Bearing with heat resisting treatment, resistant to temperature up to 250°C.
S3	Bearing with heat resisting treatment, resistant to temperature up to 300°C.
S5	Ring material code, JIS S55C, S50C or S45C.
T	Thrust tapered roller bearing, inch.
T	Thrust ball bearing, non-standard features.
T	Tapered roller bearing, tapered cone bore or tapered cup OD, inch.
T	Water pump bearing, threaded shaft.
T	Special tapered roller bearing, same dimensions as the spherical roller bearing of the same preceding number.
T	Ball bearing, with Tufftrided cage.



## KOYO

## KOYO BEARINGS

45T		Tapered roller bearing, double row, two single cups and one double cone, (direct mounting).
46T		Tapered roller bearing, double row, one double cup and two single cones, (indirect mounting).
47T		Tapered roller bearing, four row.
TDP		Thrust cylindrical roller bearing, double direction.
	TD	Tapered roller bearing, double row, tapered cone bore or tapered cup OD, inch.
TH		Slewing rim thrust ball bearing, single row, four point contact.
THR		Thrust tapered roller bearing, single direction, including slewing rim (cross roller type).
2THR		Thrust tapered roller bearing, double direction.
THR	R	Thrust cylindrical roller bearing, including slewing rim bearing of cross roller type.
THS		Thrust ball bearing, single direction, non-standard dimensions, with cage.
THX	R	Slewing rim thrust cylindrical roller bearing, single row, cross roller type.
TMK		Clutch release bearing.
TNK		Clutch release bearing.
TP		Thrust needle roller bearing, single direction, cage and roller assembly, metric.
TPR		Thrust cylindrical roller bearing, cage and roller assembly.
TPS		Thrust needle roller bearing, single direction, cage and roller assembly, metric, large roller size.
TPW		Thrust needle roller bearing, single direction, cage and roller assembly with separable washer thicker than standard metric.
TR		Tapered roller bearing, single row, non-standard dimensions.
	TR	Synthetic rubber seal, one side, triple lip, covered in metal shroud plate.
2TR		Tapered roller bearing, double row, non-standard dimensions.
	2TR	Synthetic rubber seal, both sides, triple lip, covered in metal shroud plate.



## KOYO

### KOYO BEARINGS

4TR	Tapered roller bearing, four row, non-standard dimensions.
TSR	Thrust spherical roller bearing, single direction, non-standard dimensions.
2TSR	Thrust spherical roller bearing, double direction, non-standard dimensions.
TTH	Slewing rim thrust ball bearing, four point contact, double row
TY	Cage code, machined, made of JIS HBSC-S (high tension brass), T-type.
U	Aligning seat washer for thrust ball bearing.
U	Needle roller bearing, split cage.
U	Thrust ball bearing complete with aligning seat washer.
U	Cylindrical roller bearing, split rings and cage.
UU	Needle roller bearing, with contact type synthetic rubber
2U	Special cylindrical roller bearing for railway rolling stock, double row, old type.
UJ	Universal joint.
2UJ	Special cylindrical roller bearing for railway rolling stock, double row.
4UJ	Special cylindrical roller bearing for railway rolling stock, four row.
UP	Tolerance class, ultra precision class.
UR	Needle roller bearing cage and roller assembly, different cage design from R-type.
UR	Needle roller bearing for connecting rod (small end), cage and roller assembly.
UTA	Thrust ball bearing, single direction, full complement, old type
U1, U2 etc.	Duplex angular contact ball bearing, inner ring protruded, numeral is identifier.
V	Needle roller bearing, cage and roller assembly, V-type Machined cage (M-shaped), metric, standard roller size.
V	Full ball or roller complement.
V	Friction torque code, (not included in basic bearing number).

**KOYO****KOYO BEARINGS**

VL	Friction torque code, lower friction torque than V, (not included in basic bearing number).
VP	Needle roller bearing, cage and roller assembly, V-type pressed cage (M-shaped), metric, standard roller size.
VPS	Needle roller bearing, cage and roller assembly, V-type pressed cage (M-shaped), metric, large roller size.
VS	Needle roller bearing for connecting rod (large end), cage and roller assembly, V-type machined cage (M-shaped).
VS	Spherical roller bearing for shaker screen.
W	Deep groove ball bearing, single row, wide type.
W	Ball bushing, inch.
W	Automobile rear wheel bearing.
W	Tapered roller bearing, double cone with slot on side face.
W	Cylindrical roller bearing, lubrication groove and holes on the outer ring.
WF	Miniature ball bearing, wide type, with flange on the outer ring.
WIR	Radial ball bearing, single row, extended inner ring.
WML	Miniature ball bearing, deep groove, wide type, metric.
WN	Cylindrical roller bearing, single row, N type, wide type.
WNU	Cylindrical roller bearing, single row, NU type, wide type.
WOB	Miniature ball bearing, deep groove, wide type, inch and metric.
WOBF	Miniature ball bearing, deep groove, wide type, flanged outer ring, inch, and metric.
WPB	Water pump bearing.
W1	Cylindrical roller bearing, lubrication holes on the outer ring.
W2	Cylindrical roller bearing, lubrication holes and groove on the inner ring.
W3	Cylindrical roller bearing, lubrication holes on the inner ring.
W4	Cylindrical roller bearing, lubrication holes on both inner and outer rings. both inner and outer rings. the outer ring, lubrication holes on the inner ring.

## KOYO

### KOYO BEARINGS

W20	Spherical roller bearing, three lubrication holes (equally spaced) on the outer ring.
W20A	Spherical roller bearing, four lubrication holes (equally spaced) on the outer ring.
W20C	Spherical roller bearing, six lubrication holes (equally spaced) on the outer ring.
W20T	Spherical roller bearing, eight lubrication holes (equally spaced) on the outer ring.
W2N	Spherical roller bearing, three lubrication holes (equally spaced) and a dowel hole on the outer ring.
W2NB	Spherical roller bearing, five lubrication holes and a dowel hole (total six holes equally spaced) on the outer ring.
W2NC	Spherical roller bearing, six lubrication holes (equally spaced) and a dowel hole on the outer ring.
W2ND	Spherical roller bearing, seven lubrication holes and a dowel hole (total eight holes equally spaced) on the outer ring.
W22	Spherical roller bearing, non-standard OD tolerance ( $\pm 0.005\text{mm}$ ).
W26	Spherical roller bearing, lubrication holes on the inner ring.
W33	Spherical roller bearing, three lubrication holes (equally spaced) and a lubrication groove on the outer ring.
W33A	Spherical roller bearing, four lubrication holes (equally spaced) and a lubrication groove on the outer ring.
W33C	Spherical roller bearing, six lubrication holes (equally spaced) and a lubrication groove on the outer ring.
W33T	Spherical roller bearing, eight lubrication holes (equally spaced) and a lubrication groove on the outer ring.
W3N	Spherical roller bearing, three lubrication holes (equally spaced), a lubrication groove and a dowel hole on the outer ring.
W3NA	Spherical roller bearing, four lubrication holes (equally spaced), a lubrication groove and a dowel hole on the outer ring.
W3NB	Spherical roller bearing, five lubrication holes and one dowel hole (total six holes equally spaced), and lubrication groove on the outer ring.
W3NC	Spherical roller bearing, six lubrication holes (equally spaced), a lubrication groove and a dowel hole on the outer ring.
W3ND	Spherical roller bearing, seven lubrication holes and a dowel hole (total eight holes equally spaced) and a lubrication groove on the outer ring.
W502	Spherical roller bearing, with W22 and W33 features.



## KOYO

## KOYO BEARINGS

W513	Spherical roller bearing, with W26 and W33 features.
W518	Spherical roller bearing, lubrication holes and groove on both inner and outer rings.
X	Adapter sleeve (sleeve only), narrower opening than standard, metric.
X	Lock washer, straight tongs.
X	Thrust tapered roller bearing, for screw down of rolling mill.
XD	Tapered roller bearing, inch, double row, without oil holes and groove on the outer ring.
XLS	Ball bearing, single row, inch.
XR	Cylindrical roller bearing, cross roller type, for fork lift mast.
Y	Drawn cup needle roller bearing, full complement, grease retained rollers, no inner ring, inch.
Y	Ring material code, JIS SNCM25
YM	Drawn cup needle roller bearing, full complement, grease retained rollers, no inner ring, metric.
YP	Cage code, pressed, made of JIS BSP1 or BSP3 (copper alloy), ribbon type, (not included in basic number).
YS	Cage code, pressed, made of JIS SUS27CS (stainless steel), (not included in basic bearing number).
YY	Cage code, pressed, made of JIS BSP1 or BSP3 (copper alloy), nail type, (not included in basic bearing number).
Z	Steel shield plate, one side.
ZL	Steel shield plate, one side, L-shaped shield ID.
ZS	Cylindrical roller bearing, reduced radial clearance range, separable ring interchangeable with other rings in the same lot
ZZ	Steel shield plate, both sides.
ZX	Steel shield plate, one side, shield retained by stop ring.
ZZL	Steel shield plate, both sides, L-shaped shield ID.
ZZX	Steel shield plate, both sides, shield retained by stop ring.
ZZXL	Steel shield plate, both sides, shield retained by stop ring, L-shaped shield ID.
-1,-2 etc.	Bearing with non-standard features or dimensions.

**KOYO****KOYO Ball Bearings**

Prefix	Suffix	Description
	Z	One shield
	ZZ	Two shields
	RS	One contact seal
	RU	One non-contact seal
	2RU	Two non-contact seals
	RK	One seal, two lips
	2RK	Two seals, two lips
	RD	One seal, extra-light contact
	2RD	Two seals, extra-light contact
	CM	Special radial internal clearance, for electric motors
	C2	Radial clearance less than standard
	C3	Radial clearance more than standard
	C4	Radial clearance more than C3
	CX	Special radial internal clearance
	NR	Bearing with snap ring and snap ring groove
	N	Bearing with snap ring groove.
	FY	Machined cage of high-tension brass
	FT	Machined cage of textile laminated
	MN	Molded cage, made of nylon
M		Maximum capacity, filling-notch type
W		Wide series
	B	40° angle of contact
	C	15° angle of contact
	ST	Stainless steel components
	X	Shield retaining ring for large ball bearings
	G	Flush ground on both sides

### The Codes for Bearing Types

Codes (Prefix)	Bearing Types	Marks (Prefix)	Bearing Types
UC	Cylindrical bore bearing, with set screws and relube feature	SB	Cylindrical bore bearing, with set screws
UK	<b>Tapered bore bearing, with an adapter</b>	SU	Cylindrical bore bearing, with set screws
<b>NA</b>	Cylindrical bore bearing, with an eccentric collar and extended inner ring	CB	Cylindrical bore bearing
SA	Cylindrical bore bearing, with an eccentric collar	RB	Cylindrical bore bearing, straight OD with set screws
		ER	Cylindrical bore and straight OD of bearing, with set screws

### The Codes for Housing Types

Codes (Prefix)	Housings	Marks (Prefix)	Housings
P	Pillow block type	FB	Special flange type
F	<b>Square flange type</b>	HA	Hanger type
FC	Round flange type with spigot joint	LP	Pillow block type with light weight
FS	Square flange type with spigot joint	LF	Rhombic flange type with light weight
FL	Rhombic flange type	PP	Pillow block type, pressed steel housing
T	Take-up type	PF	Round flange type, pressed steel housing
<b>C</b>	Cartridge type	PFS	Round flange type, pressed steel housing
IP	Special pillow block type (more thickness)	PFL	Rhombic flange type, pressed steel
PH	Special pillow block type (higher center height)	CRCS	For roller conveyor
PA	Special pillow block type (narrow width)	TH	Take-up type with cast iron frame
PE	Special pillow block type (for high temperature)	PTH	Take-up type with pressed steel frame
PT	Special pillow block type (for trolley wheel)	TL	Take-up type with steel frame, narrow series
FA	Special flange type	TU	Take-up type with steel frame, wide series

### The Codes for the Special Products (Bearings)

Items	Codes (Suffix)	Special specification
Sealing System	P3	Open type (without seal and slinger)
	P4	With slinger but without seal
	P5	With seal and slinger on one side
	P6	Without grease
Grease	D1	SH41
	D2	SH33M
	D3	Super loop No. 2
Set Screws	No-code	Knurled set screws with cup point (KOYO Standard)
	G1	Jam nuts
	G1·3	Jam nuts with dog point
	G3	Set screws with dog point
	G4	Set screws with cone point
	G5	Inch sized set screws
	G6	Capped set screws with dog point
	G8	W point set screws
Oil	K2	Silicon seal
Seal	K3	Non-contact seal
Clearance	C2	C2
	C3	C3
	C4	C4
	C5	C5
Others	S5	For high speed (blower units), Seal: K3, Clearance: C2, Special Tolerance on Bore dia.
	T2	Special heat treatment for the inner ring eccentric area

### The Codes for the Special Products (Bearings)

Items	Codes (Suffix)	Special specification
The Tapped Hole Dia. Of Grease Nipple	A1	PT 1/8 screw
	A2	PF 1/8 screw
	A3	PT ¼ screw
	A4	PF ¼ screw
	A5	1/8-NPT screw
	A6	1/4-NPT screw
Position of The Tapped Hole for Grease Nipple	B1	Right side
	B2	Left side
	B3	45°
	B5	30°
	B7	Both right and left side
Works	E1	With cover
	E3	With cast iron cover (diameter series 2)
	E4	Non-lubrication system
	H4	Ductile cast iron (FCD45)
	H5	SS41 steel plate
Materials Grease Nipple	N1	B type (L type 67.5°)
	N2	C type (L type 90°)

### The Codes for Accessory Parts

Codes (Suffix)	Specification	Notes
L II	Double Lip Seal	This seal has double or triple lips and provides long bearing contamination and moisture. easy mount and disassembly as in the standard bearings. also no anxiety exists such as one side contact of seal. lip on the shaft as seen in the covered type units.





## KOYO

## The Codes for Accessory Parts

C	Open Type Cover	
D	Closed End Type	
FC	Cast Iron Cover	(Open Type)
FD	Cast Iron Cover	(Closed End Type)

## Characteristics of Grease Lubricants Available for KOYO Bearings

Koyo Symbol	Trade Name	Manufacturer	Recommended Temperature Range	Characteristics
GA2	Alvania #2	Shell	+260°F	SUS @ 100°F. Worked penetration 265-295. Good shelf life and
GA3	<b>Alvanian #3</b>	Shell	-15°F	Lithium soap, rust inhibitive petroleum oil of 500 SUS @ 100°F. Worked penetration 220-250. Excellent grease for normal applications, has good shelf life.
			+260°F	
GE7	Aeroshell 7	Shell	-100°F	Thickened microgel and synthetic diester oil base, worked penetration 277. Wide temperature operating range.
			+300°F	
GA44	Dow-Coming® 44 Grease, MIL		40°F	Lithium soap, silicone oil, worked penetration 290-330. Good high temperature characteristics suitable for light loads and low speeds only.
			+400°F	
GA6			0°F	Sodium soap, petroleum oil of 550 SUS @ 100°F. Worked penetration 245-275. Good high temperature and oxidation resisting characteristics.
			+300°F	
GAC	Andok C	Humble	-30°	Sodium soap, petroleum oil of 500 SUS @ 100°F. Worked penetration 190-220.
			+250°F	



## KOYO

## Characteristics of Grease Lubricants Available for KOYO Bearings

Koyo Symbol	Trade Name	Manufacturer	Recommended Temperature Range	Characteristics
GB5			-65°F	Lithium soap with diester oil of 73 SUS @ 100°F. Worked penetration 260-310. Recommended for bearing applications where a wide range of operating temperatures may be expected.
			+250°F	
GCR			-20°F	Polyurea, ashless organic compound. Worked penetration 280, 600 SUS @ 100°F. Wide temperature operating range. Excellent corrosion inhibitors.
			+350°F	

## Angular Contact Ball Bearings

Suffixes	Description
	Contact Angle
No Code	30°
C	15°
G	Flush ground for Back-to-back Face-to-face and Tandem Mounting
5	Ball guided retainer
PA	Outer Ring Guided Retainer
	Internal Clearance/Preload
ST	Standard
C3	Greater than Standard
L	Light Preload
M	Medium Preload
H	Heavy Preload



## Angular Contact Ball Bearings

### Retainer Codes

No Code	Pressed Steel Retainer
FY	Machined Brass Retainer
FT	Phenolic Retainer
FG	Polyamide (Nylon) Retainer

### Tolerance Code

No Code	ABEC 1 Precision
P6	ABEC 3 Precision
P5	ABEC 5 Precision
P4	ABEC 7 Precision

## EE Extra Light Inch Series/Miniature Ball Bearings

Suffixes	Description	Suffixes	Description
S	Bearings wider than standard to accommodate seals/shields	<b>Internal Clearance</b>	
One side/ Both sides	<b>Closures</b>	No Code	Standard
ZX / ZZX	Removable Shield(s)	C1	Smaller than C2
<b>RS / 2RS</b>	Contact Seal(s)	C2	Smaller than standard
RD / 2RD	Light Contact Seal(s)	C3	Larger than Standard
RU / 2RU	Non-contact Seal(s)	M1	0~5 mm
		M2	3~8 mm
		M3	5~10 mm
		M4	8~13 mm
		M5	13~20 mm

**KOYO****Cylindrical Roller Bearings**

Prefix	Suffix	Description
NU		Separable Inner Ring, no thrust load capacity
NJ		Separable Inner Ring, thrust load capacity in
<b>Roller Code</b>		
	R	Larger than standard rollers
<b>Internal Clearance</b>		
	No code	Standard
	C1	Smaller than C2
	C2	Smaller than standard
	C3	Larger than standard
	C4	Larger than C3
<b>Retainer Code</b>		
	FY	Rivet type machined brass retainer
	TY	Finger type machined brass retainer

**Inch Series Tapered Roller Bearing**

Prefix	Description
	Duty:
EL	Extra light
L	Light
M	Medium
HM	Heavy Medium
H	Heavy
HH	Heavier than Heavy
EH	Extra Heavy
T	Thrust only

**KOYO****Ball Bearings**

Suffixes	Description
Shield/Seal Codes	
Z	Fixed Shield(s)
RU	Non-contact Seal(s)
RK	Dbl lip Contact Seal(s)
RD	Extremely Light Contact Seal(s)
RDT	Same as 2RD - for Large Size Ball Bearings
Internal Clearance	
No Code	Standard
C1	Smaller than C2
C2	Smaller than Standard
C3	Greater than Standard
C4	Greater than C3
No Code	Standard (Double Row Ball Bearing)
CD2	Smaller than Standard (Double Row BB)
CD3	Greater than Standard (Double Row BB)
Retainer Codes	
No Code	Pressed Steel Retainer
FY	Machined brass Retainer
FG	Polyamide (Nylon) Retainer
Tolerance Code	
No Code	ABEC 1 Precision
P6	ABEC 3 Precision
P5	ABEC 5 Precision



## Spherical Roller Bearing

Suffixes	Description
<b>Bore Designs</b>	
RR	With center rib & ribs on both sides (Brass Cage)
RH	Without center rib & without ribs on both sides
RHR	Without center rib & without ribs on both sides (Press Steel Cage)
K	1:12 Tapered Bore
K30	1:30 Tapered Bore
<b>Supplementary Codes</b>	
OVS	For applications involving vibratory load
W33	Outer ring with oil groove and lubrication holes
W502	Outer ring with oil groove and lubrication holes and tolerance of
<b>Clearance Codes</b>	
No Code	Standard clearance
C3	Greater than standard clearance
C4	Greater than C3 clearance
<b>Retainer Codes</b>	
No Code	Pressed Steel Retainer (Standard for 'RH' and 'RHR' Designs)
FY	Machined Brass Retainer (Standard for 'R' and 'RR' Designs)
YP	Pressed Brass Retainer (Standard for 24000R Designs)



## LINK BELT

### Ball Bearing Takeup Units

Prefix	Definition	Suffix	Definition
T	Takeup unit, standard slot	39	Shaft diameter, in sixteenths of an inch
TH	<b>Takeup unit, wide slot</b>	M60	Shaft diameter, metric series, in millimeters
TAS	Conveyor takeup, formed steel frame	N	Single lip seals
<b>TDS</b>	Conveyor takeup, hinged top, welded steel frame	None	Housing type seals
TGS	Conveyor elevator takeup, welded steel frame	C	Closed end unit
NT	Conveyor takeup, welded channel frame	18	Takeup adjustment, inches
LC	Universal conveyor takeup frame, Welded steel light duty frames only		
None	Bearing design, housing type seals		
3	Bearing design, integral seals		
U	Wide inner ring, spring locking		

### Rigid Sleeve Bearing Units

Prefix	Definition	Suffix	Definition
2	Two-piece housing, cast iron	F	4-bolt base (units 1000, 1100 only)
2K	<b>Two-piece housing, cast steel (if 'None', One-piece housing, cast iron)</b>	Z	Bronze bearing (If 'None', Babbitt bearing (except units 1100))
10	Pillow block, one-piece, 2-bolt base	XX	Takeup adjustment, inches
<b>11</b>	Pillow block, plain iron (no sleeve)		
12	Pillow block, angle type split joint, 2-bolt base		
13	Pillow block, angle type split joint, 4-bolt base		
14	Pillow block, horizontal gibbed joint, 4-bolt base		
15	Pillow block, angle type split joint, 40° off horizontal		
F22	Flanged unit, square, 4-bolt		
DS28	Takeup, conveyor, heavy rigid frame		
DSB28	Takeup, conveyor, heavy hinged frame		



## LINK BELT

### Round, Square, Hex Bore Ball Bearings

Prefix	Definition	Suffix	Definition
None	Bore is basic metric size	E	Bore is .031 inch oversize
31	<b>Shaft size in sixteenths of an inch</b>	10	One fifth of basic mm bore size
R	Bearing bore is round	J	Formed steel retainer, two-piece (if no 'J', Non-metallic retainer)
<b>S</b>	Bearing bore is square		
K	Bearing bore is hex	N	Single lip seals
B	OD of outer ring is cylindrical (if no 'B', OD of outer ring is spherical)	E3	Triple lip seals
G	Relubricatable (two holes in outer ring @ 180°) (if no 'G', Non-relubricatable)		
2	Basic inch width outer ring; Basic inch width inner ring		
3	Basic inch width outer ring; Basic inch width inner ring		
4	Basic inch width outer ring; unground spherical OD with Flat ground cylindrical center; intermediate inch width inner ring		
5	Metric width outer ring; intermediate inch width inner ring		
6	Basic inch width outer ring; wide inch width inner ring		
7	Wide metric width outer ring; intermediate inch width inner ring		
8	Wide metric width outer ring; wide inch width inner ring (if 'None', Metric width outer ring; basic inch width inner ring)		

### Flex-block Sleeve Bearing Units

Suffixes	Definition
F	Flanged unit, 4-bolt
FX	Flanged unit, 2-bolt
P	Pillow block
T1	Porous sintered bronze, oil impregnated, 200°F max
T3	Self-lubricating carbon graphite, 700°F max
T4	Plain bore (cast iron), 1000°F max
S	Short sleeve, (F, FX units) (If no 'S', Standard length)





## LINK BELT

### Series 200 - Standard Duty Ball Bearing Units

Prefix	Definition	Suffix	Definition
F	Flanged unit, 3 and 4 bolt	B	Inner ring bore equal to a bore of preceding smaller bearing group
FB	<b>Flanged bracket, 3 bolt</b>		
FF	Flanged screw conveyor unit, 4-bolt	E	Inner ring bore equal to a bore of following larger bearing group
<b>FC</b>	Flanged cartridge unit, 4-bolt round		
FX	Flanged unit, 2-bolt	H	Floating labyrinth seals
HM	Hanger, screw conveyor unit	N	Single lip seals
P	Pillow block, standard backing	<b>E3</b>	Triple lip seals (If 'None', Housing type seals)
PH	Pillow block, high backing		
PL	Pillow block, low backing	C	Closed end unit
PT	Pillow block, tapped base	K75	Nickel plated housing
3	Integral bearing seals (If no '3', Housing type seals)	17H	Grease designation
		4	Bearing clearance other than standard
U	Wide inner ring, spring locking, relubricatable		
Y	Wide inner ring, eccentric cam locking collar, relubricatable (If 'None', Wide inner ring, spring locking, relubricatable)		

### Series 200 - Intermediate Ball Bearing Units

Prefix	Definition	Suffix	Definition
W	DURA-KLEAN housing	B	Inner ring bore equal to a bore of preceding smaller bearing group
F	<b>Flanged unit, 3 and 4 bolt</b>		
FB	Flanged bracket, 3 bolt	E	Inner ring bore equal to a bore of following larger bearing group
<b>FR</b>	Flanged unit, 3 and 4 -bolt, inboard mounting		
FS	Flanged unit, 3 and 4-bolt round, formed steel	31	Shaft size in sixteenths of an inch



## LINK BELT

### Series 200 - Intermediate Ball Bearing Units

Prefix	Definition	Suffix	Definition
FSA	Flanged unit, 3-bolt triangular, formed steel	M50	Shaft diameter, metric series, in millimeters
FSX	Flanged unit, 2-bolt, formed steel	<b>E</b>	Molded single lip seals
FX	Flanged unit, 2-bolt	H	Floating labyrinth seals
FXR	Flanged unit, 2-bolt inboard mounting	N	Single lip seals
PS	Pillow block, formed steel housing	U	Contact seals (W200 only)
P3	Pillow block, standard backing	E3	Triple lip seals
PL3	Pillow block, low backing	17H	Grease designation
S	Extended inner ring, spring locking		
U	Wide inner ring, spring locking		
Y	Wide inner ring, eccentric cam locking collar		
W	Extended inner ring, eccentric cam locking collar		
G	Relubricatable bearing (If 'None', Non-relubricatable bearing)		

### Series U200, S200, W200, Y200 - Collar Mounted Ball Bearings

Prefix	Definition	Suffix	Definition
S	Extended inner ring, spring locking	B	Inner ring bore equal to a bore of preceding smaller bearing group
U	<b>Wide inner ring, spring locking</b>		
Y	Wide inner ring, eccentric cam collar	E	Inner ring bore equal to a bore of following larger bearing group
<b>W</b>	Inner ring extended one side only, eccentric cam collar	E	Molded single lip seals
B	OD of outer ring is cylindrical (If no 'B', OD of outer ring is spherical)	U	Contact seals (W200 only)
		<b>N</b>	Lip seals



## LINK BELT

### Series U200, S200, W200, Y200 - Collar Mounted Ball Bearings

Prefix	Definition	Suffix	Definition
G	Relubricatable (two holes in outer ring @ 180°) (If no 'G', Non-relubricatable)	H	Floating labyrinth seals
		E3	Triple lip seals
		D	Housing type seals, relubricatable, spring locking collar
		L1	Bearing without collar
		L	Bearing with collar/set screws (all bearings except U200D)

### Series 300 - Ball Bearing Units

Prefix	Definition	Suffix	Definition
C	Cartridge Unit	F	Four bolt base pillow block
F	<b>Flanged unit; 4 bolt square</b>	C	Closed end unit
FC	Flanged cartridge unit; 4 bolt round	17H	Grease designation
P	Pillow block; standard backing	4	Clearance, other than standard
P2	Pillow block; high backing		
T	Takeup unit; slotted guides		
E	Expansion unit		
- U	Bearing sealed unit		

### Replacement Ball Bearings

Prefix	Definition	Suffix	Definition
U	Wide inner ring, housing-type seals, spring locking collar	A	Bearing assembly with collar and without housing-type seals
UG	<b>Wide inner ring, bearing seals, spring locking collar</b>	D	Bearing assembly with collar and housing-type felt contact seals
		L	Bearing assembly with collar and bearing seals
		L1	Bearing assembly without collar and bearing seals



## LINK BELT

### Series M 1000, 1200, 1300, 1900, 5200, 5300, 7300 - Cylindrical Roller Bearing

Prefix	Definition
M	Metric series designation
A	Plain cylindrical inner ring
R	Single rib inner ring
SN	Short, single rib w/inner ring side plate
U	Double rib inner ring
—	(omitted if inner ring not furnished)
S	Metric bore size of next smaller bearing
6	High capacity series (If 'None', Standard capacity)
Series	Definition
1	Narrow width
5	Wide width
7	Intermediate width
0	Extra light series
2	Light series
3	Medium series
9	Extra extra light series
O5	One-fifth of bore diameter (mm)
Suffix	Definition
G	Snap ring groove in outer ring OD
GG	Two snap ring grooves in outer ring OD
R	Snap ring groove in outer ring OD; snap ring included
RR	Two snap ring grooves in outer ring OD; snap rings included
C	Plain cylindrical outer ring
D	Single rib outer ring
E	Double ring outer ring
SN	Short single rib w/out ring side plate



## LINK BELT

### Series M 1000, 1200, 1300, 1900, 5200, 5300, 7300 - Cylindrical Roller Bearing

Suffix	Definition
T	Outer ring w/two retaining rings in ID
U	Single rib outer ring, one retaining ring ID
A	Oversize OD outer ring
H	Blind dowel hole in outer ring OD
X	Segmented retainer
M	Full complement (no retainer)
V	Formed steel retainer
B	Polymeric retainer
W101	Inner ring bore radius to clear .060" shaft fillet
W102	Inner ring bore radius to clear .080" shaft fillet
W103	Inner ring bore radius to clear .100" shaft fillet
W104	Inner ring bore radius to clear .125" shaft fillet
W105	Inner ring bore radius to clear .156" shaft fillet
W106	Inner ring bore radius to clear .187" shaft fillet
W107	Inner ring bore radius to clear .250" shaft fillet
W108	Inner ring with double bore radius, standard shaft fillet radius
W110	Outer ring with reduced width tol.
W111	Outer ring width .0787" oversize (symmetrical ring)
W112	Outer ring width .1575" oversize (symmetrical ring)
W121	Outer ring width .0787" oversize and inner ring bore radius clear .060" fillet
W122	Outer ring width .1575" oversize and inner ring bore radius clear .156" fillet
W131	IR bore radius to clear .060" shaft fillet both sides
W132	IR bore radius to clear .080" shaft fillet both sides
W133	IR bore radius to clear .0100" shaft fillet both sides
W140	OR snap ring groove on side opposite rib ring



## LINK BELT

### Series M 1000, 1200, 1300, 1900, 5200, 5300, 7300 - Cylindrical Roller Bearing

Suffix	Definition
W141	OR snap ring groove on side opposite rib ring with W131 IR
W142	OR snap ring groove on side opposite rib ring with W132 IR
W143	OR snap ring groove on side opposite rib ring with W133 IR
C2	Less than basic clearance
C0	Basic clearance
C3	Greater than basic clearance
C4	Greater than C3 clearance
C5	Greater than standard clearance (Standard for assembly with “A” outer ring and omitted in model number)
—	Standard commercial clearance
Cxxx	Special specific clearance or range — i.e./C002 or/C35-49 or C3549

### Series 6600, 6800, 6900, 7600, 7800, 7900 - Pillow blocks

Prefix	Definition
P	Pillow block; two-piece
PK	Pillow block; two-piece
	Cast steel housing
	(66, 68, 76 and 78 series)
E	Expansion Mounting
LB	Spherical roller bearing
Series	Definition
66	Adapter mounted with 23000LBK bearing
68	Adapter mounted with 22200LBK bearing



## LINK BELT

### Series 6600, 6800, 6900, 7600, 7800, 7900 - Pillow blocks

Prefix	Definition
69	Adapter mounted with 22300LBK bearing
76	Direct shaft mounted with 23000LB bearing
78	Direct shaft mounted with 22200LB bearing
79	Direct shaft mounted with 22300LB bearing
Suffix	Definition
M	Metric bore adapter mount
39	Shaft diameter in 16ths of an inch – adapter mounted
65	Inner ring bore in millimeters – direct shaft mount
60	Shaft diameter in millimeters – adapter mounted
F	Four bolt base pillow block
D8	Independently flushable seal
H	Multi-labyrinth seal, series 66, 76
B	Felt contact seal
A	Felt contact seal, series 66, 76
R	Multi-labyrinth seal
M4	Cast steel housing material
C	Closed end unit
-T2	Locknut and washer (76, 78, 79 series)
2	Internal clearance less than C0
3	Internal clearance greater than C0
4	Internal clearance greater than C3
None	Standard C0 internal clearance



## LINK BELT

### Takeups

Prefix	Definition	Suffix	Definition
DS	Takeup, welded steel frame, hinged top	None	D8 independently flushable seal (standard)
E	<b>Expansion unit</b>	C	Closed end unit
LB	Spherical roller bearing	12	Takeup adjustment, inches

### Series A20000S, A20000, A20000M - Spherical Roller Bearings

Prefix	Definition
A	Spherical roller bearing, separable outer ring(s)
Series	Definition
22	Basic bearing series
23	Larger OD or greater load rating than Series 22
24	Larger OD or greater load rating than Series 23
Suffix	Definition
None	Double row roller bearing; separable outer rings
M	Double row bearing; separable outer rings with spacer for preadjusted clearance
S	Single row roller bearing; adjustable
C2	Internal clearance less than C0
C0	Standard internal clearance
C3	Internal clearance greater than C0
W22	Reduced OD tolerance in center of tolerance range
C40	Reduced OD tolerance in high half of tolerance range
C50	Reduced OD tolerance in low half of tolerance range





## LINK BELT

### Series 22200, 22300, 23000, 23100, 23200 - Spherical Roller Bearings

Prefix	Definition
2	Used to distinguish from other series
Suffix	Definition
LB	Designation for Link-Belt spherical roller bearing
None	Cylindrical bore
K	Tapered bore
M	Machined Bronze Retainer (Not Used if Standard)
W33	Lubrication holes and groove in outer ring (standard)
C1	Internal clearance less than C2
C2	Internal clearance less than C0
C0	Standard internal clearance
C3	Internal clearance greater than C0
C4	Internal clearance greater than C3
W22	Reduced OD tolerance in center of standard tolerance range
C40	Reduced OD tolerance on high side
C50	Reduced OD tolerance on low side
W4	Inner ring marked to show high point of eccentricity

### Series B22400 and B22500 - Spherical Roller Bearing Units

Prefix	Definition
C	Cartridge unit
CSE	Cartridge unit; steel housing
EF	Flanged unit, 4-bolt square



## LINK BELT

### Series B22400 and B22500 - Spherical Roller Bearing Units

Prefix	Definition
EP	Pillow block, cast iron
F	Flanged unit; 3 and 4 bolt
FC	Flanged cartridge unit; 4 bolt round
P	Pillow block
PK	Pillow block; cast steel housing
T	Takeup unit, slotted guides
DS	Takeup, conveyor, hinged top, welded steel frame
DSH	Takeup, conveyor, extra strength, welded steel frame
R	Collar opposite cover (B22400 only)
E	Expansion unit (not used with CSE symbol)
B22	Spherical roller bearing; extended inner ring separable outer rings
Suffix	Definition
B	Inner ring bore equal to a bore of preceding smaller bearing group
F	Four bolt base pillow block
H	Floating labyrinth seal
E	Spring-loaded lip seal
C	Closed end unit – fixed units only
18	Takeup adjustment, inches
17H	Grease designation

**MCGILL****Cam Followers**

Prefix	Definition	Suffix	Definition
CF	Standard Cam Roll	B	Hex Hole
CFE	<b>Eccentric Stud</b>	S	Sealed
CCF	Crowned OD	SS	2 Seals
<b>CCFE</b>	Crowned OD/Eccentric Stud	SB	Hex Hole/Sealed
CFH	Heavy Stud	X	Cylindrical OD
CCFH	Crowned OD/Heavy Stud		
CYR	Standard Yoke Roller		
CCYR	Crowned OD		
BCF	Bushing Type Cam Roll		
BCCF	Bushing Type/Crowned OD		
BCFE	Bushing Type/Eccentric Stud		
BCYR	Bushing Type Yoke Roll		
BCCYR	Bushing Type/Crowned OD		
MCF	Metric Cam Follower/Full Complement		
MCFR	Metric Cam Follower/Caged Rollers		
MCYRR	Metric Yoke Roller/Caged Rollers		
PCF	Special Duty Cam Follower		
VCF	Special Duty Cam Follower/V-Groove OD		
UCF	Special Duty Cam Follower/U-Groove OD		



## MCGILL

## Heavy Duty Inch Dimension Roller Bearings

Prefix	Definition	Suffix	Definition
MR	Outer race with caged rollers	N	Narrow width
GR	<b>Outer race with guided rollers</b>	S	One seal, directed inward
MI	Inner races	RS	One seal, directed outward
		SS	Two seals, directed inward
		RSS	Two seals, directed outward
		SRS	One seal inward, one outward

## Spherical Roller Bearing

Prefix	Definition	Suffix	Definition
SB	Spherical, single row	S	Single Seal
		SS	Two Seals
		K	Taper Bore
		KL	SPL Grease
		KS	Taper Bore, Seal on small side
		KSL	Taper Bore, Seal on large side
			(T) High Temp Seal
		YS	One LAMBDA Seal
		YSS	Two LAMBDA Seals
		KYS	Taper Bore, LAMBDA Seal small side
		KYSL	Taper Bore, LAMBDA Seal large side
		JK	Mobile Grease
		PB	Fully Packed - Stand 65% Grease Fill - PB 100%



## MPB

## Micro Symbols

Prefix	Definition	Suffix	Definition
F	Flanged Bearings	D	Ribbon Retainer
N	<b>Beryllium Copper</b>	H	With Through-hole
R	Retainer Radial	M	Metric Dimensions
S	Stainless Steel	T	Plastic Retainer
		X	ABEC 7 Tolerances
		Z	Spring Separators

## Indicates Ring and Ball Material

Prefix	Definition
C	SAE 52100 Steel
S	440C Stainless Steel Races and Balls
N	QQC 530 Beryllium Races and Balls

## Indicates Type of Bearing

Suffix	Definition
None	Full race, no retainer, full slotted rings
C	Radial, L-type retainer
R	Radial, ribbon-type retainer
E	Extended inner ring
F	Flanged outer ring
H	Single shield
HH	Double shield
M	High speed, non-separable



## MPB

### Indicates Type of Bearing

MA	High speed, outer ring separable
MB	High speed, inner ring separable
MC	High speed, Conrad-type
MR	High speed, full race
ML	Linear motion bearing
N	Narrower than standard
W	Wider than standard
U	Internally self aligning
PR	Pivot bearing, closed end
P	Pivot bearing, self aligning
A	Pivot bearing, through shaft
T	Thrust bearing
O	Shield on side opposite flange
S	Spring separator
Z	Single seal
ZZ	Double seal

### Internal and Performance Properties of Bearing

Suffix	Definition
Designation for matched pairs	
DB	Back-to-back mounting
DF	Face-to-face mounting
DT	Tandem mounting



## MPB

### Internal and Performance Properties of Bearing

DU Universal mounting

#### Radial Play

No Symbol Standard radial play (.0002 to .0008)

P Followed by two numbers indicates radial play in tenths of an inch (example: P35 designates radial play of .0003 to .0005)

#### Dimensional Coding

ZO Graded OD's only

ZB Graded Bores only

ZD Graded Bores and OD's

ZDM Graded for pairs having matched OD's and bores

#### Torque Specifications

Q Followed by a number indicates starting torque in hundreds of mg-mm. (Example: Q15 indicates bearing with 1500 mg-mm starting torque)

V Followed by a number indicates running torque in hundreds of mg-mm. (Example: to designate a bearing with running torque of 1300 mg-mm, specify V13)

### Indicates the Type and Method of Application of the Lubricant

Suffix Definition

LD No lubrication. Dry.

LO Followed by numbers indicates specific oil lubrication.

LG Followed by numbers indicates specific grease lubrication.

LY Followed by numbers indicates MPB-approved lubricants not necessarily conforming to military specifications.

LOV Followed by numbers indicates the specific lubricant to be vacuum impregnated into the retainer.

LOC Followed by numbers indicates specific oil lubricant to be used, then centrifuged.

LPG Followed by numbers indicates the specific grease to be used in grease-plating internal surfaces.



## MRC

### MRC Bearing Symbols

Prefix	Suffix	Description
	B	Rigid construction, maximum capacity
	BK	Rigid construction, maximum capacity standard width
	C	Conrad, rigid construction, standard width
	C1	1/8" additional width from standard; 5205C1 & 5212C1 are 1/16" wider than standard
	CTC	Clutch release bearing, with housing
	CTQ	Clutch release bearing, with housing
	CTR	Clutch release bearing, with housing and grease fitting
	CZ	Single-row deep groove type ball bearing with one seal, similar to SZ Type
	CZZ	Single-row deep groove type ball bearing with two seals, similar to SZZ Type
	D	Bearing with controlled relationship of ring faces, used in duplex sets.
	DB	Matched set of duplex bearings, back-to-back mounting
	DD	Two glass fabric reinforced PTFE (Teflon) seals
	DE	Matched set of duplex bearings, universal mounting, with end play requirement
	DF	Matched set of duplex bearings, face-to-face mounting
	DH	Matched set of duplex bearings, universal mounting, with heavy preload
	DL	Matched set of duplex bearings, universal mounting, with light preload
	DM	Matched set of duplex bearings, universal mounting, with medium preload
DPP		Double-row airframe bearing with two glass Reinforced PTFE (Teflon) seals, non rigid design
	DS	Matched set of duplex bearings, universal mounting, with preload requirement
DSP		Double-row, internally self-aligning, airframe bearing, with two glass reinforced PTFE (Teflon) seals
	DT	Matched set of duplex bearings, tandem mounting





## MRC

## MRC Bearing Symbols

	DU	½ pair duplex bearings, universal mounting with no preload or end play
DW		Double-row airframe bearing with two glass reinforced PTFE (Teflon) seals, rigid design
DW	K	Double-row airframe bearing with cage and two glass reinforced PTFE (Teflon) seals, rigid design
E		Single-row magneto type ball bearing with separable outer ring
	E	Self-aligning ball bearing with higher load rating than original design
ER		Power transmission type bearing, extended inner ring with set screws, with snap ring and relube holes in outer ring
E	R	Single-row, counterbored outer ring, radial type ball bearing
	ES	Single-row elevator type bearing with groove in outer ring and two shields
	F	Thrust bearing, single acting.
	F	One shield
FB		Single-row flanged ball bearing with tapered OD
FB	FFM	Single-row flanged ball bearing with tapered OD and two shields
FB	FFP	Single-row flanged ball bearing with tapered OD and two rubber beaded shields
FB	ZZ	Single-row flanged ball bearing with tapered OD and two seals
FC		Single-row flanged ball bearing with cylindrical OD
FC	FFM	Single-row flanged ball bearing with cylindrical OD and two shields
FC	FFP	Single-row flanged ball bearing with cylindrical OD and two rubber beaded shields
FC	ZZ	Single-row flanged ball bearing with cylindrical OD and two seals
	FF	Two shields
	FFM	Two shields
	FFP	Two rubber coated shields
	FFS	Two felt seals, replaced by 88XXX



## MRC

## MRC Bearing Symbols

	FFSG	Two felt seals and snap ring, replaced by 488XXX
FG	M	Single-row maximum capacity ball bearing with shield on same side as filling notch and snap ring on opposite side
FG	R	Single-row counterbored outer ring ball bearing with shield and snap ring on side opposite counterbore
	FM	One shield
F	M	Single-row maximum capacity ball bearing with shield on same side as filling notch
F	MG	Single-row maximum capacity ball bearing with shield and snap ring on same side as filling notch
	FP	One rubber coated shield
F	R	Single-row counterbored outer ring ball bearing with shield on side opposite counterbore
F	RG	Single-row counterbored outer ring ball bearing with snap ring on counterbore side and shield on opposite side
	FS	One felt seal, replaced by 8XXX
	FSF	One felt seal and one shield, replaced by 87XXX
	FSFG	One felt seal and one shield with snap ring on seal side, replaced by 487XXX
	FSG	One felt seal with snap ring on open side of bearing
F	WI	Single row maximum capacity ball bearing with inner ring extended one side, and shield on extended inner side
	FW	Front wheel bearing
	FZ	One seal and one shield
FZG	M	Single-row maximum capacity ball bearing with seal on filling notch side and shield and snap ring on opposite side
FZ	M	Single-row maximum capacity ball bearing with seal on filling notch side and shield on opposite side



## MRC

## MRC Bearing Symbols

FZ	MG	Single-row maximum capacity ball bearing with seal and snap ring on filling notch side and shield on opposite side
	G	Snap ring
G	FS	One felt seal with snap ring on same side as seal
G	FSF	One felt seal and one shield with snap ring on shield side
G	MF	Single-row maximum capacity ball bearing with shield and snap ring on side opposite filling notch
G	MFZ	Single-row maximum capacity ball bearing with shield on filling notch side and seal and snap ring on opposite side
G	MS	Pressed flange housing, regreaseable, eccentric locking collar
GR		Pillow block, regreaseable, with two Flexigard seals, eccentric locking collar
G	R	Single-row counterbored outer ring ball bearing with snap ring on side opposite counterbore. 15° contact angle
G	RF	Single-row counterbored outer ring ball bearing with shield on counterbore side and snap ring on opposite side. 15° contact angle
G	SF	Single-row deep groove ball bearing with shield and snap ring on same side
GT		Pillow block, regreaseable, with two seals, eccentric locking collar
H		Adapter sleeve, nut and lockwasher assembly used with self-aligning ball bearing with tapered bore
	H	9000 Series angular contact ball bearing with split outer ring
HH		Combined glass reinforced PTFE (Teflon) seal and stainless steel shield
J	DF	Ball screw support, duplex pair, face-to-face mounting
J	DFDT	Ball screw support, quadruplex set, tandem pair matched face-to-face with a tandem pair
	JR	Single-row, counterbored outer ring, radial type bearing, reduced OD and narrow width. 15° contact angle.
	K	Double-row angular contact, filling notch type bearing, standard width and inwardly converging contact angles, non-rigid design



## MRC

## MRC Bearing Symbols

	K	Self-aligning ball bearing with 1:12 tapered bore
K	L	Single-row airframe type bearing with two stainless steel shields
KP		Single-row airframe type bearing with two glass reinforced PTFE (Teflon) seals
KP	A	Single-row airframe type bearing with two glass reinforced PTFE (Teflon) seals, similar to KP Type except reduced OD and width
KP	AK	Single-row air frame type bearing with two glass Reinforced PTFE (Teflon) seals, and cage, same as KP-A except includes cage
KP	B	Single-row airframe type bearing with two glass reinforced PTFE (Teflon) seals
KP	BS	Single-row airframe type bearing with two glass reinforced PTFE (Teflon) seals, and self-aligning ring on OD
KP	K	Single-row airframe type bearing with two glass reinforced PTFE (Teflon) seals, and cage
	KR	Single-row, counterbored outer ring, radial type, ball bearing. 15° contact angle
	KS	Single-row deep groove type ball bearing
	KSB	Single-row , extra precision, separable inner ring, radial type bearing
	KSJ	Single-row, extra precision, low shoulder one side of inner, non-separable, radial type bearing
KSP		Single-row airframe type bearing, internally self-aligning, with two glass reinforced PTFE (Teflon) seals
KSP	A	Single-row airframe type bearing, internally self-aligning, with two glass reinforced PTFE (Teflon) seals. Similar to KSP except reduced OD and width
L		One glass reinforced PTFE (Teflon) seal
LB		Flange unit, non-regreaseable, with labyrinth seals, and eccentric locking collar.
LL		Two glass reinforced PTFE (Teflon) seals
LZ		Flange unit, non-regreaseable, with two seals and eccentric locking collars
M		Airframe bearing with special close tolerances
M		Single-row, miniature, inch size bearing. ABEC-5 precision



## MRC

## MRC Bearing Symbols

	M	Single-row maximum capacity, filling notch type ball bearing
	M	Double-row angular contact, filling notch ball bearing with outwardly convergent contact angles
	M	Machined bronze cage for self-aligning ball bearings
	MC2	Machined bronze cage and AFBMA C2 internal clearance for self-aligning ball bearing
	MFZG	Single-row maximum capacity, filling notch ball bearing with shield and snap ring on filling notch side and seal on opposite side
MR	C	Cylindrical roller bearing, two flanges on inner ring, none on outer ring
MR	CQ	Cylindrical roller bearing, outer ring only, no flanges
MR	CY	Cylindrical roller bearing, inner ring, roller and cage assembly only, two flanges on inner ring
MR	D	Cylindrical roller bearing, with two flanges on inner ring, one on outer ring.
MR	E	Cylindrical roller bearing, two flanges on outer ring, none on inner ring
MR	EJ	Cylindrical roller bearing, inner ring only, no flanges
MR	EX	Cylindrical roller bearing, outer ring, roller and cage assembly only, two flanges on outer ring
MR	F	Cylindrical roller bearing, two flanges on outer ring, one flange on inner ring, with side plate
MR	G	Cylindrical roller bearing, two flanges on outer ring, one flange on inner ring
N		Lock nut
	NYL	Fiberglass reinforced 6/6 polyamide cage
O	B	Single-row, metric, high speed rotor bearing, less inner ring
OR	B	Single-row, inch size, high speed rotor bearing, less inner ring
P		Single-row airframe type bearing, two seals, aircraft pulley type
	P	Single-row angular contact, counterbored outer ring, heavy duty bearing, with 40° contact angle
PB		Pillow block, non-regreaseable, with two labyrinth seals and eccentric locking collar



## MRC

## MRC Bearing Symbols

	PD	Single-row angular contact, counterbored outer ring, heavy duty bearing, 40° contact angle, with controlled relationship of ring faces, used in duplex sets
PD	K	Double-row airframe type bearing, two seals, aircraft pulley type, rigid design
	PJ	Single-row angular contact, counterbored inner and outer ring, heavy duty bearing, with a 40° contact angle
	PJD	Single-row angular contact, counterbored inner and outer ring, heavy duty bearing, 40° contact angle, with controlled relationship of ring faces, used in duplex sets
P	K	Single-row airframe type bearing, with two seals, aircraft pulley type
PZ		Pillow block, non-regreaseable, with two seals and eccentric locking collar
R		Single-row, small inch size bearing
	R	Single-row, counterbored outer ring, radial type bearing, 15° contact angle
	R	Double-row, radial type, non-filling notch ball bearing with cast bronze finger type case. 0° contact angles
R	A	Single-row, small inch size bearing, with increased OD and width
RA	ATT	Power transmission type, inner extended one side only, cylindrical OD, two flexigard seals, non-regreaseable, eccentric locking collar
RA	AZZ	Power transmission type, inner extended one side only, cylindrical OD, two seals, non-regreaseable, eccentric locking collar
RA	BTT	Power transmission type, inner ring extended one side only, spherical OD, two Flexigard seals, non-regreaseable, eccentric locking collar
RA	BZZ	Power transmission type, inner ring extended one side only, spherical OD, two seals, non-regreaseable, eccentric locking collar
RAP	M	Airframe bearing, rod end type, with male threaded shank
R	B	Single-row, small inch size, high speed rotor bearing, with separable inner ring
R	B	Single-row, small inch size, high speed rotor bearing, with separable inner ring
R	C	Cylindrical roller bearing, with two flanges on inner ring, none on outer ring
R	CQ	Cylindrical roller bearing, outer ring only, no flanges



## MRC

### MRC Bearing Symbols

R	CY	Cylindrical roller bearing, inner ring, roller and cage assembly only, two flanges on inner ring
R	D	Cylindrical roller bearing, with two flanges on inner ring, one on outer ring.
	RD	Single-row, counterbored outer ring, radial type bearing, with controlled relationship of ring faces, used in duplex with controlled sets
	RDM	Dynamometer bearing, ABEC-5 inner ring, ABEC-1 outer ring, phenolic cage, 15° contact angle
	RDT	Single-row, split inner ring bearing, 20° contact angle
R	E	Cylindrical roller bearing, two flanges on outer ring, none on inner ring
R	EJ	Cylindrical roller bearing, inner ring only, no flanges
R	EX	Cylindrical roller bearing, outer ring, roller and cage assembly only, two flanges on outer ring
REPB	N	Airframe bearing, rod end type, with female threaded shank
REP	F	Airframe bearing, rod end type, with female threaded shank
REP	H	Airframe bearing, rod end type, with hollow shank
REP	M	Airframe bearing, rod end type, with male threaded shank
REP	S	Airframe bearing, rod end type, with solid shank
R	F	Cylindrical roller bearing, two flanges on outer ring, one flange on inner ring, with side plate
	RF	Single-row, counterbored outer ring, radial type bearing, with shield on counterbored side, 15° contact angle
	RFG	Single-row, counterbored outer ring, radial type bearing, with shield and snap ring on counterbored side, 15° contact angle
REP	S	Airframe bearing, rod end type, with solid shank
R	F	Cylindrical roller bearing, two flanges on outer ring, one flange on inner ring, with side plate
	RF	Single-row, counterbored outer ring, radial type bearing, with shield on counterbored side, 15° contact angle



## MRC

## MRC Bearing Symbols

	RFG	Single-row, counterbored outer ring, radial type bearing, with shield and snap ring on counterbored side, 15° contact angle
R	G	Cylindrical roller bearing, two flanges on outer ring, one flange on inner ring
	RG	Single-row, counterbored outer ring, radial type bearing, with snap ring on counterbored side, 15° contact angle
	RJ	Single-row, counterbored inner ring, radial type bearing, with snap ring on counterbored side, 15° contact angle
RRA	BTT	Power transmission bearing, inner ring extended one side only, spherical OD, two Flexigard seals, regreaseable, eccentric locking collar
RRA	BZZ	Power transmission bearing, inner ring extended one side only, spherical OD, two seals, regreaseable, eccentric locking collar
	RS	Double-row, radial type, non-filling notch ball bearing, with cast bronze finger type cage
	2RS1	Self-aligning ball bearing with two synthetic rubber seals
RT		Power transmission bearing, inner ring extended both sides, two seals, regreaseable, eccentric locking collar
RW		Single-row deep groove, rear wheel type bearing with two seals
	RZ	Single-row, counterbored outer ring, radial type bearing, with seal on counterbored side, 15° contact angle
	R2	Double-row, split outer ring, radial type bearing
	S	Single-row deep groove ball bearing
	S	9000 Series angular contact angle bearing with one-Piece inner and outer rings, 20° contact angle
	SB	Double-row, angular contact, non-filling notch bearing, with outwardly convergent contact angles, rigid design
	SBK	Double-row, angular contact, non-filling notch, standard width bearing, with outwardly convergent contact angles, rigid design
	SFFC	Single-row deep groove, cardridge width bearing, with two shields
	SFFCG	Single-row deep groove, cartridge width bearing, with two shields and snap ring
	SFFP	Single-row deep groove ball bearing with two zero contact, synthetic rubber seals





## MRC

## MRC Bearing Symbols

	SFP	Single-row deep groove ball bearing with one zero contact, synthetic rubber seal
	SH	Single-row deep groove bearing, wider than standard
	SLLC	Single-row deep groove, cartridge width bearing, with two removable shields
	SRRC	Single-row deep groove, cartridge width bearing, with two labyrinth seals
S	S	Single-row, small inch size bearing
	ST	Stainless steel (440C) rings and rolling elements
	SV	Single-row deep groove bearing, narrower than standard
	SWI	Single-row deep groove bearing, with inner ring extended one side
	SXY	Single-row deep groove bearing, tapered bore, with adapter sleeve and nut
	SZZC	Single-row deep groove bearing, cartridge width, with two seals
	SZZCG	Single-row deep groove bearing, cartridge width, with two seals and snap ring seals and snap ring
T	ARR	Power transmission bearing, inner ring extended both sides, cylindrical OD, two labyrinth seals, non-regreaseable, eccentric locking collar
T	AZZ	Power transmission bearing, inner ring extended both sides, cylindrical OD, two seals, non-regreaseable, eccentric locking collar
T	BRR	Power transmission bearing, inner ring extended both sides, spherical OD, two labyrinth seals, non-regreaseable, eccentric locking collar
T	BZZ	Power transmission bearing, inner ring extended both sides, spherical OD, two seals, non-regreaseable, eccentric locking collar
	U	Thrust bearing, single acting, with self-aligning washer
	U	9000 Series angular contact ball bearing with split inner ring, 29° contact angle
	UH	9000 Series angular contact ball bearing with split inner and outer rings, 29° contact angle
	UK	9000 Series, extra light, angular contact ball bearing with split inner ring, 29° contact angle
	UP	9000 Series, 40° angular contact ball bearing with split inner ring



## MRC

## MRC Bearing Symbols

UR		Flange unit, two seals, regreaseable, with eccentric locking collar
UT		Flange unit, two Flexigard seals, regreaseable, with eccentric locking collar
	V	Single-row, maximum capacity, filling notch type ball bearing, with narrow width
	V	Felt seal replacement bearing with one seal and one shield with snap ring on seal side
W		Lock washer
	W	Cylindrical roller bearing, roller and cage assembly only
WC		Single-row felt seal replacement bearing with inner and outer ring faces flush on one side
	WI	Single-row, maximum capacity, filling notch type ball bearing, with inner ring extended one side only
	X	Tapered bore bearing
XLR		Cylindrical roller bearing, inch size
XLS		Single-row, counterbored outer ring, radial type ball bearing, inch size
XO	RBDS	Excello Replacement Bearing
	XY	Tapered bore bearing with adapter sleeve
	Y	Adapter sleeve and nut
Y	PWI-DB	Duplex pair of airframe bearings, seals on outboard side, aircraft pulley type
	Z	One synthetic rubber seal
	ZZ	Two synthetic rubber seals
	ZZC	Single-row, cartridge width bearing, extra small size, with two synthetic rubber seals

## NACHI

### NACHI

Prefix	Suffix	Applicable Bearing	Classification Of Symbol	Definition
	A	Angular contact ball bearing	Contact angle	Nominal contact angle (30°)
	<b>A</b>	Tapered roller bearing	Special design	Special inner ring width, width over bearing rings or chamfer dimension
	AS	Deep groove ball bearing	Seal	Seal for dusty circumstances, on one side
	-2AS	Deep groove ball bearing	Seal	Seal for dusty circumstances, on both sides
	a	Deep groove ball bearing		Special chamber based on AFBMA
	an (n=1,2,...)	Tapered roller bearing	Special design	Special chamfer
	+AH	All bearing	Sleeve	Withdrawal sleeve
	B	Angular contact ball bearing	Contact angle	Nominal contact angle (40°)
	B	Tapered roller bearing, inch series	Special design	Flanged outer ring
C-		All bearing	Material	Case hardened steel
	C	Angular contact ball bearing	Contact angle	Nominal contact angle (13°)
	CB	Angular contact ball bearing	Contact angle	Nominal contact angle (20°)
	C1	Deep groove ball bearing, double row angular contact, double row angular contact roller bearing, spherical roller bearing	Radial clearance	Less than C2
	C2	Deep groove ball bearing, double row angular contact ball bearing, cylindrical roller bearing, spherical roller bearing	Radial clearance	Less than normal clearance



## NACHI

## NACHI

Normal Clearance	Deep groove ball bearing, double row angular contact ball bearing, cylindrical roller bearing, spherical roller bearing	Radial clearance	Normal clearance
C3	Deep groove ball bearing, double row angular contact ball bearing, cylindrical roller bearing, spherical roller bearing	Radial clearance	Greater than normal clearance
C4	Deep groove ball bearing, double row angular contact ball bearing, cylindrical roller bearing, spherical roller bearing	Radial clearance	Greater than C3
C5	Deep groove ball bearing, double row angular contact ball bearing, cylindrical roller bearing, spherical roller bearing	Radial clearance	Greater than C4
C7	Duplex angular contact ball bearing	Clearance	Preload
C8	Duplex angular contact ball bearing	Clearance	Preload; heavier than C7
C1na	Cylindrical roller bearing	Radial clearance	Narrower clearance range than C1, C2, C3, C4 and C5 respectively, bearing parts not interchangeable
C2na			
C3na			
C4na			
C5na			
CM	Deep groove ball bearing	Radial clearance	Radial clearance for electric motor bearings
CT	Cylindrical roller bearing	Radial clearance	Radial clearance for electric motor bearings
D	All bearing	Material	Case hardened steel

**NACHI**

NACHI				
D	Tapered roller bearing	Contact angle	Nominal contact angle (28° 48'39")	
D	Deep groove ball bearing	Duplex mounting	Two bearings paired	
DB	Angular contact ball bearing, Tapered roller bearing	Duplex mounting	Back-to-back mounting	
DF	Angular contact ball bearing, Tapered roller bearing	Duplex mounting	Face-to-face mounting	
DT	Angular contact ball bearing, Tapered roller bearing	Duplex mounting	Tandem mounting	
E	Roller bearing	Special design	High capacity bearing	
E-----	-----J	Tapered roller bearing	Special design	High capacity bearing
ED	Tapered roller bearing	Service	Bearing for driving gear of locomotive	
F	All bearing	Shape	Flanged outer ring	
F	All bearing	Cage	Machined steel cage, generally inner ring centered	
G	All bearing	Cage	Non-metallic cage, nylon cage etc.	
H-	All bearing	Material	High Speed steel	
+H	All bearing	Sleeve	Adapter sleeve, mm bore	
+HE	All bearing	Sleeve	Adapter sleeve, inch bore	
Hsn (n=1,2...)	Deep groove ball bearing	Special design	Snap ring groove or special pin hole	
K	All bearing	Ring modification	Tapered bore, taper 1/12	
K30	All bearing	Ring modification	Tapered bore, taper 1/30	
KB	Angular contact ball bearing Tapered roller bearing	Duplex mounting	Back-to-back mounting with only outer ring spacer	
L	All bearing	Cage	Light metal cage	



## NACHI

## NACHI

LR	Deep groove ball bearing	Seal	Land riding seal one side
-2LR	Deep groove ball bearing	Seal	Land riding seal on both sides
M	All bearing	Shape	Maximum type bearing
MY	All bearing	Cage	Machined brass cage, generally inner ring centered
MY1	All bearing	Cage	Machined brass cage, generally outer ring centered
N	Tapered roller bearing	Noise	Noise tested bearing
N	All bearing	Ring modification	Snap ring groove in outer ring
NR	All bearing	Ring modification	Snap ring on outer ring
NK	Deep groove ball bearing	Seal	Labyrinth rubber seal on one side
-2NK	Deep groove ball bearing	Seal	Labyrinth rubber seal on both sides
NSL	Deep groove ball bearing	Seal	Rubber seal on one side
-2NSL	Deep groove ball bearing	Seal	Rubber seal on both sides
P	Spherical roller bearing	Special design	Split outer ring
Normal Class	All bearing	Tolerance	Tolerance class "normal"
P6	All bearing	Tolerance	Tolerance class P6
P5	All bearing	Tolerance	Tolerance class P5
P4	All bearing	Tolerance	Tolerance class P4
RN	Cylindrical roller bearing	Shape	Without outer ring
RNU	Cylindrical roller bearing	Shape	Without inner ring
S-	All bearing	Material	Stainless steel



## NACHI

## NACHI

Sn (n=1,2,...)	All bearing	Special design	Some portion differs from standard
S26	All bearing	Special design	Heat treatment for temperature up to 150°C (300°F)
S28	All bearing	Special design	Heat treatment for temperature up to 200°C (390°F)
T	All bearing	Service	Bearing for traction motor
TDY1	Turn table bearing	Ring modification	Thrust ball bearing, double direction, internal gear
TDY0	Turn table bearing	Ring modification	Thrust ball bearing, double direction, external gear
TSY1	Turn table bearing	Ring modification	Thrust ball bearing, single direction, internal gear
TSY0	Turn table bearing	Ring modification	Thrust ball bearing, single direction, external gear
TXZ1	Turn table bearing	Ring modification	Thrust roller bearing, single direction, internal gear
TZX0	Turn table bearing	Ring modification	Thrust roller bearing, single direction, external gear
U	Thrust ball bearing	Special design	Bearing with aligning seat washer
V	All bearing	Cage	Cageless bearing, full complement of balls or rollers
W	All bearing	Cage	Pressed steel cage, one piece
W	Tapered roller bearing, inch series	Special design	Slot or keyway in ring
W20	All bearing	Special design	Oil holes in outer ring
W33	All bearing	Special design	Oil holes and circumferential oil groove in outer ring
Y	All bearing	Cage	Pressed brass cage
Y3	All bearing	Cage	Pressed phosphor bronze cage
Z	Deep groove ball bearing	Shield	Shield on one side
ZZ	Deep groove ball bearing	Shield	Shield on both sides

## NDH

### Roller Bearing

Prefix	Suffix	Definition
A		Cylindrical inner ring, cylindrical roller bearing variants from standard are labeled AB, AC, etc.
A		Inner ring only, self-aligning roller bearing, angular contact
A		Cone and rollers, tapered roller bearing
A	TS	Cylindrical roller bearings, cylindrical outer ring with two roller retainment rings, cylindrical inner ring, with cage, separable inner ring
A-62	TS	Cylindrical roller bearing, double row of rollers, cylindrical outer ring with two roller retainment rings separable cylindrical inner ring, with cage
A	WB	Cylindrical roller bearing, two rib outer ring, separable cylindrical inner ring, with retainer (cage)
A	Y	Tapered roller bearing
A	YS	Tapered roller bearing
A	Z	Self-aligning roller bearing, non-separable, angular contact type, barrel shaped rollers
A	Z	Tapered roller bearing
A	ZS	Tapered roller bearing
B		Built up cage, rollers contained by inner ring, cylindrical roller bearing
B		Cone and rollers tapered roller bearing
	B	Built up cage, rollers contained by outer ring, cylindrical roller bearing
B	W	Tapered roller bearing
B	YK	Self-aligning roller bearing, non-separable, angular contact type, barrel shaped rollers
BU		Cylindrical roller bearing, two rib inner ring, cage and rollers, no outer ring
BU	L	Cylindrical roller bearing, one rib outer ring, two rib inner ring, rollers and cage, outer ring separable
BU	Z	Cylindrical roller bearing, cylindrical outer ring, two rib inner ring, rollers and cage, outer ring separable
C		Journal roller bearing, outer ring and roller assembly, inner ring omitted





## NDH

## Roller Bearing

C		Cone and rollers, tapered roller bearing
C	WA	Tapered roller bearing
CD		Double wide series journal roller bearing without inner ring
CA		Internal clearance other than standard but having the same range. (Prefix if rollers are assembled with inner ring)
	CA	Internal clearance other than standard but having the same range. (Suffix if rollers are assembled with outer ring)
CSD		Special dimensioned, double wide series journal roller bearing without inner ring
CSW		Special dimensioned wide series journal roller bearing without inner ring
CW		Wide series journal roller bearing without inner ring
D		Double width series journal roller bearing
D		Inner ring only, self-aligning roller bearing, angular contact type
DIR		Double width series inner ring, journal roller bearing
DOR		Double width series outer ring, journal roller bearing
E		Journal roller bearing, inner ring and roller assembly, no outer ring
E		Cone spacer, tapered roller bearing
EA	ZD	Tapered roller bearing, double row of rollers
EB	ZD	Tapered roller bearing, double row of rollers
ED		Journal roller bearing, double width series, "E" type, outer ring omitted
EN		Journal roller bearing, narrow series, "E" type, outer ring omitted
G		End ring marking, journal roller bearing
	G	SAE snap ring groove in outer ring
HP		Journal roller bearing, roller assembly and mill treated, planished, split type, outer ring
IR		Inner ring, journal roller bearing



## NDH

## Roller Bearing

J		Separable rib, inner ring cylindrical roller bearing (see JRN and RN)
JRN		Inner ring, cylindrical roller bearing, two ribbed, one rib separable
JRN	WB	Cylindrical roller bearing, two rib outer ring, two rib inner ring, two rib inner ring, one rib of inner ring separable, retainer (cage) type
KA		Inner ring and roller assembly, self-aligning roller bearing, angular contact type, barrel shaped rollers
	KA	Roller and ring components matched according to diameter to obtain minimum internal clearance spread
KA	Z	Self-aligning roller bearing, angular contact type, barrel shaped rollers completed with outer and inner ring and roller assembly, outer ring separable
KB		Inner ring and roller assembly, self-aligning roller bearing, angular contact type, barrel rollers
KB	W	Self-aligning roller bearing, separable outer ring, angular contact type, barrel shaped rollers
KB	Y	Self-aligning roller bearing, angular contact type, barrel shaped rollers, separable outer ring
KB	Z	Self-aligning roller bearing, angular contact type, barrel shaped rollers, separable outer ring
KC		Inner ring and roller assembly for self-aligning roller bearing, angular contact type, barrel shaped rollers
KC	Y	Self-aligning roller bearing, angular contact type, barrel shaped rollers, separable outer ring
KC	Z	Self-aligning roller bearing, angular contact type, barrel shaped rollers, separable outer ring
KD		Inner ring and roller assembly for self-aligning roller Bearing, angular contact, barrel shaped rollers
KD	Y	Self-aligning roller bearing, angular contact type, barrel shaped rollers, separable outer ring
KD	Z	Self-aligning roller bearing, angular contact, barrel shaped rollers, separable outer ring
KG		Inner ring and roller assembly for self-aligning roller Bearing, angular contact, barrel shaped rollers
KG	W	Self-aligning roller bearing, angular contact type, barrel shaped rollers, separable outer ring
KG	Z	Self-aligning roller bearing, angular contact type, barrel shaped rollers, separable outer ring
KH		Inner ring and roller assembly for self-aligning roller Bearing, angular contact, barrel shaped rollers



## NDH

## Roller Bearing

KH	Y	Self-aligning roller bearing, angular contact type, barrel shaped rollers, separable outer ring
KL	W	Self-aligning roller bearing, angular contact, barrel shaped rollers, separable outer ring
KN		Inner ring and roller assembly for self-aligning roller bearing, angular contact type, barrel shaped rollers
KN	W	Self-aligning roller bearing, angular contact type, barrel shaped rollers, separable outer ring
	L	One rib outer ring, cylindrical roller bearing
	LK	Cylindrical roller bearing, one rib outer ring with oversize outside and inside diameters
M		Journal roller bearing, medium series, wound rollers
	M	Full complement of rollers, no retainer (cage separator), cylindrical roller bearing
MC		Medium series journal roller bearing without inner ring
MIR		Inner ring, medium series journal roller bearing
MOR		Outer ring, medium series, journal roller bearing
MRA		Roller assembly, journal roller bearing, medium series
N		Journal roller bearing, narrow series
N		Inner ring only, self-aligning roller bearing angular contact type
NC		Narrow series journal roller bearing without inner ring
NIR		Inner ring, journal roller bearing, narrow series
NOR		Outer ring, journal roller bearing, narrow series
NRA		Roller assembly, journal roller bearing, narrow series
OR		Outer ring, journal roller bearing
P		Separable inner ring rib, adapted for use with RR type Inner ring (see PRR and RR)
PRR		Inner ring, cylindrical roller bearing, two ribbed, one rib separable and extended
PRR	WB	Cylindrical roller bearing, two rib outer ring, two rib inner ring, two rib inner ring, one inner ring rib separable and extended



## NDH

## Roller Bearing

R		One rib inner ring, cylindrical roller bearing
R	TS	Cylindrical roller bearing, one rib inner ring, cylindrical outer ring with two roller retainment rings, cage (retainer) type
R	YS	Cylindrical roller bearing, one rib outer ring with one roller retainment ring, one rib inner ring, cage (retainer) type
R	WB	Cylindrical roller bearing, two rib outer ring, one rib inner ring cage (retainer) type
RA		Roller assembly, journal roller bearing
RN		Inner ring, cylindrical roller bearing, one rib, adapted to receive separable second "J2" type rib (see JRN prefix)
RR		Inner ring, cylindrical roller bearing, adapted to receive separable "P" type rib (see PRR)
	RZ	Self-aligning roller bearing, angular contact type, barrel shaped rollers, no inner ring
S		Journal roller bearing, solid outer ring and roller assembly, no inner ring
S		Special dimensions, journal roller bearing or component parts
	S	Retainer (cage, separator) type cylindrical roller bearing
SIR		Special dimensions, inner ring, journal roller bearing
SD		Special dimensional double wide series, journal roller bearing
SDIR		Inner ring, special dimensioned double wide series, journal roller bearing
SDOR		Outer ring, special dimensioned double wide series, journal roller bearing
SDRA		Roller assembly, special dimensioned double wide series, journal roller bearing
SOR		Special dimensions, outer ring, journal roller bearing
SW		Special dimensioned, wide series, journal roller bearing
SWIR		Special dimensioned, wide series, inner ring, journal roller bearing
SWOR		Special dimensioned, wide series, outer ring, journal roller bearing
SWRA		Special dimensioned, wide series, roller assembly, journal roller bearing
	SZ	Self-aligning roller bearing, angular contact type, barrel shaped rollers, no inner lining



## NDH

## Roller Bearing

	T	Cylindrical outer ring, cylindrical roller bearing, with two roller retainment rings
T		Notched inner ring construction, journal roller bearing
TA	Z	Self-aligning roller bearing, double row of rollers, non-separable, angular contact type, barrel shaped rollers
	TIR	Notched inner ring, journal roller bearing
TM		Journal roller bearing, notched inner ring construction, medium series
	TM	Cylindrical roller bearing, cylindrical outer ring with two roller retainment rings, no inner ring, full complement of rollers
TMIR		Notched inner ring, journal roller bearing, medium series
	TOR	Notched outer ring, journal roller bearing
	TS	Cylindrical roller bearing, cylindrical outer ring with two roller retainment rings, with cage (retainer), no inner ring
TSIR		Notched inner ring, journal roller bearing
TSW		Journal roller bearing, special dimensioned wide series, notched inner ring construction
TSWIR		Notched inner ring, special dimensioned wide series, journal roller bearing
TW		Journal roller bearing, wide series, notched inner ring construction
TWIR		Notched inner ring, wide series, journal roller bearing
TX		Notched inner ring construction, journal roller bearing
TXW		Notched inner ring construction, wide series, journal roller bearing
U		Two ribbed inner ring, cylindrical roller bearing
U	TM	Cylindrical roller bearing, two rib inner ring, cylindrical outer ring with two roller retainment rings, full outer ring with two roller retainment rings, full complement of rollers
U	TS	Cylindrical roller bearing, two rib inner ring, cylindrical outer ring with two roller retainment rings, cage (retainer) type
U	W	Cylindrical roller bearing, two rib inner ring, two rib outer ring, retainer (cage type), non-separable



## NDH

## Roller Bearing

U	YM	Cylindrical roller bearing, two rib inner ring, one rib outer ring with one roller retainment ring, full complement of rollers
U	YS	Cylindrical roller bearing, two rib inner ring, one rib outer ring with one roller retainment ring, cage (retainer) type
W		Journal roller bearing, wide series (200 series only)
	W	Two rib outer ring, cylindrical roller bearing
	W	Outer ring only, self-aligning roller bearing, angular contact type
	WA	Cup, tapered roller bearing
	WB	Cylindrical roller bearing, two rib outer ring, cage (retainer) type, no inner ring
WIR		Inner ring, journal roller bearing, wide series
WOR		Outer ring, journal roller bearing, wide series
WRA		Roller assembly, wide series, journal roller bearing
X	X	Additional suffixes and prefixes to indicate special or experimental construction or detail
	Y	One rib outer ring, cylindrical roller bearing, with one roller retainment ring
	Y	Outer ring only, self-aligning roller bearing, angular contact type
	YM	Cylindrical roller bearing, one rib outer ring with one roller retainment ring, no inner ring, full complement of rollers
	YS	Cylindrical roller bearing, one rib outer ring with one roller retainment ring, cage (retainer) type, no inner ring
	YS	Cup, tapered roller bearing
	Z	Cylindrical outer ring, cylindrical roller bearing
	Z	Outer ring only, self-aligning roller bearing, angular contact type
	Z	Cup, tapered roller bearing
	ZA	Cylindrical outer ring, cylindrical roller bearing, with special details or construction
	ZB	Cylindrical outer ring, cylindrical roller bearing, with special details or construction
	ZD	Double cup, tapered roller bearing
	ZK	Cylindrical roller bearing, cylindrical outer ring with oversize inside and outside diameters
	ZS	Cup, tapered roller bearing



## NDH

## Ball Bearing

Prefix	Suffix	Definition
A		External garter spring seal-pumpshaft, impeller end
A		Adapter bearing, no seals, industry standard widths, eccentric locking collar
	A	Immediately following basic bearing number -specialty letter. (Indicates some deviation from standard)
AB		Adapter bearing with wide inner ring, set screw locking tyoe
AE		Adapter bearing with wide inner ring, eccentric locking collar type
AG		Agricultural Bearing with two piece flanged outer ring
AP		Aircraft pulley bearing
AS		Agricultural seal (usually multiple lip type)
	B	Specialty letter. Separable inner race used on some commercial and instrument bearings.
C		Steel Slinger-type Seal
	C	Specialty letter. Cylindrical OD for Adapter bearings
CB		Conveyor Roll Bearing
CF		Cam follower bearing
CS		Close wound coil spring stainless steel separator
CT		Clutch Throwout Bearing
CWC		Steel Slinger Seal, Wide Outer Ring
D		Rear-Wheel-type seal (Steel slinger and felt seal)
	D	Specialty letter.
	DB	Duplex Bearing — Back-to-back mounting
	DF	Duplex Bearing — Face-to-face mounting
	DT	Duplex Bearing — Tandem mounting
	E	Specialty letter.



## NDH

### Ball Bearing

F	With Flush Type Angular Contact Bearing, single row end play. Inch Type, without separator
FL	Pressed metal flange, used in pairs on a spherical OD bearing
FT	Flat thrust bearings
F	Specialty letter.
G	Outer ring OD groove other than snap ring (lubrication groove, etc)
H	With 0LL00, 0L00 and 20000 Series Angular Contact bearing 25° Contact Angle
H	Specialty letter.
J	Angular contact bearing with snap on inner ring (counter bore)
J	Specialty letter.
K	Specialty letter.
L	“Loose” Endplay (except Duplex Bearings)- follows basic bearing number and its suffixes: e.g. 5305 L1A, 5306L
L	Duplex Bearings— Standard Fit-up (light pre-load) —follows “DB,” “DF” or “DT”: e.g. H20305DT L1A
LA	Adapter bearing, type A with above type L seals
LC	Type AE Adapter Bearing Less Collar. Warehouse carries with collar
LR	Loose Radial Play
M	With inch dimension bearings— Miniature stainless steel instrument bearings
MG	Mast Guide bearing series
MR	Minimum radial play
N	Flanged Outer Race
N	With single row — Extra loose end-play (formerly “EL”)
NR	Radial Play — Looser than LR
ND	Magneto Series (separable)





## NDH

## Ball Bearing

NF	See individual descriptions of “N” and “F” prefixes
PF	Agricultural idler unit for flat belts
P	Pumpshaft bearing. Add seal prefixes such as 88P, 99P, 98P, A99P, AB9P, etc., as required
PV	Agricultural idler unit for V belt
P	Specialty letter.
Q	Non-metallic Separator
R	With Sealed Bearings —Relubrication Feature. Inch type with separator
RA	Adapter bearing type A with relube holes, no seals
RAS	Heavy duty Disc Harrow seal bearing with relube holes in OD or outer ring
RFL	Pressed metal flange pair with lubrication fitting used on relube type spherical OD bearing
RGA	Adapter bearing RA plus relube groove
RGLA	Adapter bearing RLA plus relube groove
RGTA	Adapter bearing RTA plus relube groove
RGWA	Adapter bearing RWA plus relube groove
RGWAB	Adapter bearing RWAB plus relube groove
RLA	Adapter bearing LA except with relube holes on OD on side opposite eccentric collar
RP	Pumpshaft bearing with one ball row and one roller row
RS	Removable shields
RTA	Adapter bearing same as TA except with relube holes on OD
RW	Rear Wheel
RWAB	Adapter bearing. WAB except with relube holes on OD on side opposite extended inner ring
R88A	Sleeve and Nut type Adapter bearing with provision for injection relubrication
S	Open Wound Coil Spring Separator of Stainless Steel
S	Special Internal fit-up or preload



## NDH

## Ball Bearing

SR		Stainless steel separator. If used in a bearing having shields or seals, the sheet metal closures are stainless steel
SS		stainless steel
T		Combined with another letter (TC, TM, TP, etc) signifies various textile bearing types
T		Armor Gard seal (non removable)
TE		Agricultural adapter bearings using Armor Gard seals
	T	Tight internal fit-up (except Duplex Bearings) — follows basis bearing number and its Suffixes: e.g. 5306T
	T	Duplex Bearings — Heavy pre-load — follows basic bearing number and its suffixes: e.g. Q20210DT T5A
	Type	Following suffix DT, DF, DB indicates one piece only of pair
U		“Universal” single Angular Contact Bearing — ground for Duplex Back-to-back, Face-to-face or Tandem mounting. Example: Two U20200 L5 may be used as 20200 DB L5A, 20200 DF L5A or 20200 DTL5A. May also be used singly
	U	Specialty letter.
V		Cast Bronze Machined Separator
	V	Snap-ring on opposite side from standard
	W	With Double Row — Externally diverging contact angles Reversed Contact Angle
WA		Adapter bearing, type A plus wide inner ring and land riding Armor-gard seals
WAB		Adapter bearing, type AB plus wide inner ring and land riding Armor-gard seals
WC		Wide Cup Seal Bearing — Outer Ring extended so as to be flush with Inner Ring on one face
WD		Two piece, cylindrical pocket, integral saddle, outer ring controlled, pressed phosphor bronze separator
WE		Adapter bearings with wide inner ring, land riding seals and seal guards
X		With 88000 Seal Bearings — Free seal fit-up for Propeller Shaft Bearings
	X	Standard Endplay & Noise test (except on Single Angular Contact and Duplex Bearings) Usually omitted, thus 3205 X1A is simply shown as “3205”
	#	Angular Contact Bearings — Single Bearings Only — No preload (Do not use for Duplex Mounting) Omitted when Standard, thus H20305 #1 is simply shown as “H20305”
	X	Duplex Bearings — Medium preload— follows “DB,” “DF,” or “DT” e.g. H20305 DT X1A



## NDH

## Ball Bearing

XR	Standard Radial Play
Y	Low Speed Noise Test
Z	Removable molded synthetic rubber seal or shield
ZA	.0002 Maximum Radial Play
ZB	.0001 — .0003 Radial Play
ZC	.0002 — .0004 Radial Play
ZD	.0003 — .0005 Radial Play
ZE	.0004 — .0006 Radial Play
ZF	.0005 — .0008 Radial Play
ZH	.0008 — .0011 Radial Play

## Ball Bearing

Suffix	Definition
	Immediately following Basic Bearing No. and End Play Symbol — Degree of Precision
1 Digit Figures	1—ABEC1
	3—ABEC3
	5—ABEC5
	7—ABEC7, New Departure Perfix
	9—New Departure Ultra Perfix
4 Digit Figures Last Suffix Letter (s)	Immediately following Basic Bearing No. and End Play Symbol — Special Feature Type of Grease Packing — examples: X1 A (A grease), XY1C (C grease), T3 CF (CF grease), DB L5A (A grease)
1 Digit Figure	Following Grease Suffix letters indicates other than standard, volume or method of applying lubricant



## Norma Hoffman

### Standard Bearing Symbols

Symbol	Description	Series
100	Single Row Rigid Ball Journals	Light Metric
100 ACD	Angular Contact Ball Bearings	Light Metric
100 CD	Duplex Ball Bearings (Split outer ring)	Light Metric
100 CDS	Duplex Ball Bearings (Split inner ring)	Light Metric
100 DR	Double Row Rigid Ball Journals. Gap type	Light Metric
100 GS	Grinding Spindle Ball Bearings	Light Metric
300	Single Row Rigid Ball Journals	Medium Metric
300 ACD	Angular Contact Ball Bearings	Medium Metric
300 CD	Duplex Ball Bearings (Split outer ring)	Medium Metric
300 CDS	Duplex Ball Bearings (Split inner ring)	Medium Metric
300 DR	Double Row Rigid Ball Journals. Gap type	Medium Metric
500	Single Row Rigid Ball Journals	Heavy Metric
500 ACD	Angular Contact Ball Bearings	Heavy Metric
500 CD	Duplex Ball Bearings (Split outer ring)	Heavy Metric
500 CDS	Duplex Ball Bearings (Split inner ring)	Heavy Metric
A	Magneto Bearings	Metric
CA	Aircraft Control Bearings with end shields	Inch
CL	Clutch Withdrawal bearings	Inch
CS	Aircraft Control Bearings With end shields	Inch
D	Double Thrusts with flanged housing	Heavy Inch
EW	Single thrusts Flat tracks	Extra Light Inch
H	Single Thrusts with aligning housing	Heavy Inch



## Norma Hoffman

### Standard Bearing Symbols

HD	Double Thrusts	Heavy Inch
HDR	As HD but with small bore centre washer	Heavy Inch
HR	Single Thrusts with aligning washer	Heavy Inch
HW	Single Thrusts	Heavy Inch
HX	Double Thrusts with sleeve	Heavy Inch
HZ	Single Thrusts with aligning seat washer	Heavy Inch
L-CD	Duplex Ball Bearings (Split outer ring)	Light Inch
L-CDS	Duplex Ball Bearings (Split inner ring)	Light Inch
LM	Single Thrusts	Light Metric
LM-B	Single Thrusts	Light Metric
LRP	Rigid Pedestals (Four bolt)	Light Inch
L-N	Single Row Rigid Ball Journals	Narrow Light Metric
LS	Single Row Rigid Ball Journals	Light Inch
LS-ACD	Angular Contact Ball Bearings	Light Inch
LSN	Externally-aligning Ball Journals	Light Inch
LSW	Externally-aligning Ball Journals	Light Inch
LT & LB	Ball Journals with Adapter sleeve and nut	Light Inch
LTBP	Rigid Pedestals (Two bolt)	Light Inch
LTW	Externally-aligning Ball Journals	Light Inch
M	Single Thrusts with aligning housing	Medium Inch
M-CD	Duplex Ball Bearings (Split outer ring)	Medium Inch
M-CDS	Duplex Ball Bearings (Split inner ring)	Medium Inch
MD	Double Thrusts	Medium Inch



## Norma Hoffman

### Standard Bearing Symbols

MDR	As MD but with small bore centre washer	Medium Inch
M-N	Single Row Rigid Ball Journals	Narrow Medium Metric
MR	Single Thrusts with aligning washer	Medium Inch
MRP	Rigid Pedestals (Four bolt)	Medium Inch
MS	Single Row Rigid Ball Journals	Medium Inch
MS-ACD	Angular Contact Ball Bearings	Medium Inch
MSN	Externally-aligning Ball Journals	Medium Inch
MSW	Externally-aligning Ball Journals	Medium Inch
MT & MB	Ball Journals with adapter sleeve and nut	Medium Inch
MTBP	Rigid Pedestals (Two bolt)	Medium Inch
MTW	Externally-aligning Ball Journals	Medium Inch
MW	Single Thrusts	Medium Inch
MX	Double Thrusts with sleeve	Medium Inch
MZ	Single Thrusts with aligning seat washer	Medium Inch
NR	Needle Roller Journals	Metric
NR-R	Needle Roller Journals with retaining ring	Metric
R 100	Rigid Roller Journals	Light Metric
R 300	Rigid Roller Journals	Medium Metric
R 500	Rigid Roller Journals	Heavy Metric
RLS	Rigid Roller Journals	Light Inch
RLSN	Externally-aligning	Light Inch
RLSW	Externally-aligning roller Journals	Light Inch
RLT & RLB	Roller Journals with adapter sleeve and nut	Light Inch



## Norma Hoffman

### Standard Bearing Symbols

RLTW	Externally-aligning roller Journals	Light Inch
RMS	Rigid Roller Journals	Medium Inch
RMSN	Externally-aligning Roller Journals	Medium Inch
RMSW	Externally-aligning Roller Journals	Medium Inch
RMT & RMB	Roller Journals with adapter sleeve and nut	Medium Inch
RMTW	Externally-aligning Roller Journals	Medium Inch
RXLS	Rigid Roller Journals	Extra-Light Inch
S	Single Row Rigid Ball Journals	Small Inch
T	Aircraft Control Bearings	Inch
U 100	Self-aligning Ball Journals	Light metric
U 100 W	Self-aligning Ball Journals	Extra wide Light Metric
U 300	Self-aligning Ball Journals	Medium Metric
U 300 W	Self-aligning Ball Journals	Extra wide Medium Metric
ULP	Self-aligning Pedestals	Inch and Metric
ULS	Self-aligning Ball Journals with adapter sleeve and nut	Light Inch
ULT	Self-aligning Ball Journals with adapter sleeve and nut	Light Inch
UMS	Self-aligning Ball Journals	Medium Inch
UMT	Self-aligning Ball Journals with adapter sleeve and nut	Medium Inch
*UT 100	Self-aligning Ball Journals with adapter sleeve and nut	Light Metric
*UT 300	Self-aligning Ball Journals with adapter sleeve and nut	Medium Metric
W	Single Thrusts	Light Inch
W-B	Single Thrusts	Light Inch



## Norma Hoffman

### Standard Bearing Symbols

WD	Double Thrusts	Light Inch
WR	As WD but with small bore centre washer	Light Inch
WS	Double Thrusts with sleeve	Light Inch
WSP	Single Thrusts with aligning washer	Light Inch
WZ	Single Thrusts with aligning seat washer	Light Inch
XLM	Single Thrusts	Extra Light Metric
XLS	Single Row Rigid Ball Journals	Extra Light Inch
XW-B	Single Thrusts	Extra Light Inch

### Ball Bearings

Suffix	Description
FS	With one felt seal
FSS	With two felt seals
K	With snap ring groove
KR	With snap ring
P	With one metal shield
PP	With two metal shields
RS	With one rubbing seal
RSS	With two rubbing seals





## Norma Hoffman

### Roller Bearings

Suffix	Description
D	With two lips on each ring, one lip on outer ring being loose
E	With straight inner ring and two lips on outer ring
F	With two lips on each ring but one inner lip, loose
H	As P but with one protruding loose lip on inner ring
L	With one lip on outer ring and two on inner ring
LL	With two lips on outer and inner rings
M	As E but with one protruding loose lip on inner ring
P	With one lip on inner ring and two lips on outer ring

### Angular Contact Bearings

Suffix	Description
B	Paired, Back-to-Back
F	Paired, Face-to-Face
T	Paired in Tandem

### Ball Location Bearings

Suffix	Description
Loc	Location Duty

### Extra Precision Bearings

Ep 5, EP7	Metric sizes
Ep	Inch sizes



## Norma Hoffman

### Instrument Precision Bearings

IS 5, IS 7, IS 9

### Special Bearing Symbols

Ball Journal, Angular Contact and Duplex

4000 to 5999; 9000 to 9999 ;F 001 to F 628; N 001 onwards

Roller Bearings

3000 to 3999; 8000 to 8999;A 001 to A 999; H 001 to H 999;X 001 to x 386; L 001 onwards

Special Rollers

B 47 onwards

Miscellaneous Parts

C 001 onwards (Includes special balls and matched units)

Single Thrust

2000 to 2999; 7000 to 7999;E 001 onwards

Double Thrust

1000 to 1999; 6000 to 6999

Double Row Thrust

700 to 999

Needle Roller Bearings

J 001 onwards



## Spherical Roller Bearings

Suffix	Description
CAM, AM	Bronze cage, one piece, guide ring
M	Bronze cage, two piece, guide flange
C, CD	Steel cage, two piece, guide ring
H	Poyamide cage, two piece
K	Tapered bore 1:12
K30	Tapered bore 1:30
g	Carburized steel, complete bearing
g3	Carburized steel, inner ring only
E4	Lube groove & holes outer ring
E7	Lube groove & holes outer ring, holes inner ring
E3	Holes only outer ring
E5	Holes only inner ring
—	No relube features
E42	Plugs provided for outer ring holes
E4P53	Combination W33, W4, W31
E4U22	Combination W33, W31
E7U22	Combination W33, W26, W31
P52	Outer ring with extra close running accuracy
P53	Inner ring with extra close running accuracy
P55	Inner and outer ring w/extra close running accuracy
U22	Special Inspection measures
S11	Inner ring and outer ring heat stabilized to 200°C
C2	Tight clearance
—	Normal clearance
C3	Loose clearance
C4	Extra loose clearance

## Cylindrical Roller Bearings

Prefix	Suffix	Description
N		Single row, no flanges on outer ring
NJ		Single row, one flange only on inner ring, 2 flanges on outer ring
NU		No flanges on inner ring
NN		Double row, no flanges on outer ring
NNU		Double row, no flanges on inner ring
	*	Standard design
	E	High capacity
	*	No symbol indicates standard design
	T	Glass-fiber reinforced polyamide (only available with type E high capacity bearings)
	M	Machined brass
	W	Pressed steel cage
	WS	Pressed steel for type E high capacity bearings
	C2	Tight
	*	Normal (no symbol indicates normal clearance)
	C3	Loose
	C4	Extra loose

## Super Precision Double Row Cylindrical Roller Bearings

Prefix	Suffix	Description
NN		Double row, no flanges on outer ring
NNU		Double row, no flanges on inner ring
	MB	Two-piece machined brass cage
	KR	Special Precision: 1/12 taper on bore
	E2	Outer ring with lube groove and holes
	CC1	Matched Radial Clearance CC1
	P4	Tolerance Class P4



## Super Precision Angular Contact Ball Bearings

Suffix	Description				
C	Contact Angle: 15°	Tolerance Classes			
A5	<b>Contact Angle: 25°</b>	NSK (ISO)	NSK (ABEC)	ISO	AFBMA
TY	Polyamide cage	P5	PA5	Class 5	ABEC 5
T	Phenolic cage	P4	PA7	Class 4	ABEC 7
DU	Duplex universal	P2	PA9	Class 2	ABEC 9
SU	Single universal				
L	Light (preload symbols)				
M	Medium (preload symbols)				
H	Heavy (preload symbols)				

## Ball Bearings

Type	Series	Suffix	Description
R	Inch, single row	V	Single non-contact seal
600	<b>Metric, single row, extra small</b>	VV	Double non-contact seal
6000	Metric, single row, extra light	Z	Single shield
6200	Metric, single row, light	ZZ	Double shield
6300	Metric, single row, medium	D	Single contact seal (R and 600 series)
63200	Metric, cartridge, light	DD	Double contact seal (R and 600 series)
63300	Metric, cartridge, medium	DU	Single contact seal
5200	Metric, double row, conrad, light	DDU	Double contact seal
5300	Metric, double row, conrad medium	C2	Tight
3200	Metric, double row, maximum compli- ment, light	*	Normal
		C3	Loose



## NSK

## Ball Bearings

3300	Metric, double row, maximum complement, medium	C4	Extra Loose
		E	Electric Motor Grade
BL200	Metric, maximum capacity, light	AKC	Andok C
BL300	Metric, maximum capacity, medium	AV2	Alvania #2
		B32	Becon 325
		SRI	Chevron SRI
		S	Standard
		L	Light
		H	Heavy

## Standard Angular Contact Ball Bearings

Type	Series	Suffix	Description
7000	Metric, angular contact, extra light	B	Contact Angle: 40°
7200	<b>Metric, angular contact, light</b>	C	Contact Angle: 15°
<b>7300</b>	Metric, angular contact, medium	A	Contact Angle: 30°
7400	Metric, angular contact, heavy	M	Machine Brass
		Y	Pressed Brass
		G	Flush ground on both sides for use in universal duplex mounting

## Tapered Roller Bearings Inch Design

Prefix	Suffix	Description
EH		Extra heavy
EL		Extra light
H		Heavy
HH		Heavier than heavy
HM		Heavy medium



## NSK

## Tapered Roller Bearings Inch Design

J	Metric designed
L	Light
LL	Lighter than light
LM	Light medium
M	Medium
R	Conforms to AFBMA standard
G	Case carburized cups & cone NSK uses these two standard suffixes. Either one or two letter suffixes may appear
*	

## Tapered Roller Bearings Metric Design

Prefix	Suffix	Description
HR		High capacity
	C	Medium angle
	D	Steep angle (30300 series only)
	J	Cup angle and raceway diameter conform to ISO 355

## Mounted Units

Prefix	Suffix	Description
EW		Eccentric locking collar
UC		Set screw locking collar
F		Square 4-bolt flange
FH		Elevated square 4-bolt flange
FL		Oval 2-bolt flange
P		Standard pillow block
PLL		Low base pillow block
	J	Spherical housing bore tolerance class J7
	U	Inch size set screw in locking device
	W	Improved set screw design

**Ball Screw Support Bearings**

Prefix	Suffix	Description
TAC		Bearing Type Symbol: Contact Angle 60°
	B	Internal Specification Symbol
	SU	Single universal
	DF	Duplex face to face
	DB	Duplex back to back
	DT	Duplex tandem
	DFF	4 row combinations
	DFT	4 row combinations
	DTT	4 row combinations
	C10	Metric series
	C11	Inch series
	PN7A	Corresponds to ISO Class 4
	PN7B	Tighter bore and OD accuracy for universally ground (SU) bearings



**NTN****Mounted Unit**

Prefix	Suffix	Description
<b>Bearing Inserts</b>		
AEL		Narrow inner ring, locking collar
AR		Narrow inner ring, set screw type
AS		Narrow inner ring, set screw type
JEL		Narrow inner ring, locking collar
REL		Wide inner ring, locking collar
UR		Wide inner ring, set screw type
UC		Wide inner ring, set screw type, with flinger
UEL		Wide inner ring, locking, with flinger
UK		Tapered bore, with flinger
<b>Housings</b>		
F		Falnged unit, cast housing
FA		Flanged unit, cast housing
FC		Flanged piloted unit, cast housing
FD		Flanged unit, cast housing
FH		Flanged unit, cast housing
FL		Flanged unit, cast housing
FS		Flanged piloted unit, cast housing
FU		Flanged unit, cast housing
PF		Flanged unit, pressed steel housing
PFL		Flanged unit, pressed steel housing
RPF		Flanged unit, pressed steel housing with rubber ring



## NTN

### Mounted Unit

HP	Pillow Block, cast housing, high center height
P	Pillow Block, cast housing
PL	Pillow Block, cast housing, low center height
PP	Pillow Block, pressed steel housing
RPP	Pillow Block, pressed steel housing with rubber ring
UP	Pillow Block, cast housing
C	Cylindrical cartridge unit
HB	Hanger unit, cast housing
PT	Mini stretcher
T	Take-up unit, cast housing
D1	Relube type
T	Relube type

### NTN Prefix & Suffix Interchange

Characteristics	NTN	SKF	FAG	TORR	NSK
<b>Closures</b>					
Non-Contact Seal One	LB	RZ	RSD	N/E	V
Non-Contact Seal Two	LLB	2RZ	2RSD	N/E	VV
Contact Seal One	LU	RS1	RSR	P	DU
Contact Seal Two	LLU	2RS1	2RSR	PP	DDU
Shield One	Z	Z	Z	D	Z
Shield Two	ZZ	2Z	2Z	DD	ZZ
Snap Ring One	NR	NR	NR	G	NR



## NTN

## NTN Prefix &amp; Suffix Interchange

Characteristics	NTN	SKF	FAG	TORR	NSK
<b>Precision Classes</b>					
ABEC 3	P6	P6	P6	M*	PA3
ABEC 5	P5	P5	P5	V*	P5, PA5
ABEC 7	P4	P4	P4	MM*	P4, PA7
ABEC 9	P2	PA9A	P2	MMX*	P2, PA7
<b>Special Features</b>					
Taper Bore	K	K	K	K	K
Oil Groove	D1	W33	S	W33	E4
Shaker Screens	UAVS	CACM2/ W502	F80	W800	U15-VS
<b>Contact Angles</b>					
15°	C	C	C	2*	C
30°	No Sym	AC	E (25°)	3=(25°)*	A, (A5=25°)
40°	B	B	B	WN	B
<b>Preload</b>					
Extra Light	GL	G0	U0	UX	C2
Light	GN	GA	UL	UL	L, C7
Medium	GM	GB	UM	UM	M, C8
Heavy	GH	GC		UH	H, C9



## NTN

### NTN Prefix & Suffix Interchange

Characteristics	NTN	SKF	FAG	TORR	NSK
Cage					
Phenolic	T1	TP	TA, TB, TH, TP	CR	T
Pressed Brass	Y	Y	MP	No Sym	Y
Polyamide	T2	TN, P	TN	PRB/PRC	TY
Bronze	L1	M	M, MP	MBR	CAM, M
Nylon	T2	TN9	T, TV	CF	TY
Pressed Steel	J	J	J	C, CD	W
Duplex					
Universal Ground	G	GG*	U	SU	G
*Prefix					

\*\*Old Nomenclature; New = CA, CB, CC, GA, GB, GC

### NTN Bearing Series Interchange

Bearing Type	NTN	SKF	FAG	TORR	NSK
Cylindricals					
	N	N	N	000RNO	N
	NU	NU	NU	000RU0	NU
	NF	NF	N/E	000RFO	NF
	NJ	NJ	NJ	000RJ0	NJ
	NH	NH	NJ & HJ	N/E	NH
	NN	NN	NN	N/E	NN



## NTN

## NTN Bearing Series Interchange

Bearing Type	NTN	SKF	FAG	TORR	NSK
<b>Ball Bearings</b>					
	R	EE or R	R	S	R
	600	600	600	30K	600
	6800	61800	61800	—	6800
	6900	61900	61900	9300K	6900
	6000	6000	6000	9100K	6000
	6200	6200	6200	200K	6200
	6300	6300	6300	300K	6300
	6400	6400	6400	6400	6400
Max Capacity	BL200/ TMB200	200	200	200W	BL200
	BL300/ TMB300	300	300	300W	BL300
<b>Felt Seal</b>					
Single Shield	8000	N/E	8000	30KL	8000
Shielded/Sealed	87000	N/E	87000	30KLD	87000
	88000	N/E	88000	30KLL	88000
Double Sealed	8500	N/E	8500	200KL	8500
	87500	N/E	87500	200KLD	87500
	88500	N/E	87500	200KLL	88500
<b>Cartridge</b>					
	63200	462200	S3500	W200PP	63200
	63300	462300	S3600	W300PP	63300
Bearing Type	NTN	SKF	FAG	TORR	NSK



## NTN

## NTN Bearing Series Interchange

## Angular Contact

	7800	71800	71800	—	—
	7900	71900	71900		7900
	7000	7000	7000	7100	7000
	7200	7200	7200	7200	7200
	7300	7300	7300	7300	7300

## Double Row

	5200	5200	3200B	5200K	5200
	5300	5300	3300B	5300K	5300
	3200	5200	3200	5200W	3200
Max Capacity	3300	5300	3300	5300W	3300

## Self-Aligning

Extra Narrow	1200	1200	1200	L200	1200
Narrow	2200	2200	2200	L6200	2200
Wide	1300	1300	1300	L300	1300
Extra Wide	2300	2300	2300	L6300	2300

## Sphericals

	21300	21300	21300	21300	21300
	22200	22200	22200	22200	22200
	22300	22300	22300	22300	22300
	23000	23000	23000	23000	23000
	23100	23100	23100	23100	23100
	23200	23200	23200	23200	23200
	23400	23400	23400	23400	23400
	24000	24000	24000	24000	24000
	24100	24100	24100	24100	24100



## NTN

### Tapered Roller Bearing

Prefix	Suffix	Description
ET		NTN Endurance tapered roller bearings, case hardened material
4T		NTN 4-Top tapered roller bearings, case hardened material
E		Case hardened steel
T		Internationally interchangeable dimensions
		Series
H		Heavy
HH		Heavier than heavy
HM		Heavy-medium
L		Light
LM		Light-medium
M		Medium
ISO		Metric series 320X, 302, 322, 303 and 323
	A	Different bore, OD, width or radius from basic part number
	PK	Class K for J-line
	Pxn	Special tolerance, n; from 1 onward
	S	Different bore, OD, width or radius from basic part number
	U	ISO series; internationally interchangeable through hardened steel
	W	Slot or keyway
	X	Different bore, OD, width or radius from basic part number
	O	AFBMA class 0
	OO	AFBMA class 00
	-2	AFBMA class 2
	-3	AFBMA class 3
	-4	AFBMA class 4



## NTN

### Ball and Roller Thrust Bearing

Series & Size	Suffix	Description
51, 53		Single direction thrust ball bearing
52, 54		Double direction thrust ball bearing
56		Angular contact thrust ball bearing
29		Spherical thrust roller bearing
29		Single direction thrust ball bearing
9		Single direction thrust ball bearing
	No symbol	Standard cage
	J	Pressed steel cage
	L1	Machined brass cage
	T2	Plastic cage, nylon or teflon

### Cylindrical Roller Bearing

Prefix	Suffix	Description
N		Straight outer ring with inner ring and roller assembly
NU		Straight inner ring with outer ring and roller assembly
NF		One lip outer ring with inner ring and roller assembly
NJ		One lip inner ring with outer ring and roller assembly
NH		NJ series bearing with HJ thrust collar (NJ+HJ=NH)
NN		Double row precision cylindrical bearings
HJ		Separate thrust collar
R, RN, RNU		Special cylindrical roller bearings
	E	High capacity cylindrical roller bearings
	Xn	Special chamfer, from 1 onward (X1, X2...)





## NTN

## Cylindrical Roller Bearing

F1	Machined steel cage
J	Pressed steel cage
G1	Machined brass cage
T2	Nylon cage
	Internal Clearance
C1	Radial clearance less than C2
C2	Radial clearance less than normal
No Suffix	Normal Radial Clearance
C3	Radial clearance greater than normal
C4	Radial clearance greater than C3
C5	Radial clearance greater than C4
CSXX	Special radial clearance; XX is mean
	Value in 0.001mm units
NA	Radial clearance of cylindrical roller bearings with non-interchangeable components
	Tolerance
Normal	ISO class 0
P6	ISO class 6 (equivalent to RBEC 3)
P5	ISO class 5 (equivalent to RBEC 5)
P4	ISO class 4 (equivalent to RBEC 7)



## NTN

## Spherical Roller Bearing

Prefix	Suffix	Description
TS2		Heat stabilization for up to 320°F (160°C)
TS3		Heat stabilization for up to 390°F (200°C)
TS4		Heat stabilization for up to 480°F (250°C)
Internal Design		
	B	One piece ribbed inner ring, asymmetrical rollers and center guided retainer
	C	Plain inner ring, center floating guide ring (smaller size bearings)
	UA	Inner ring without center guide, asymmetrical rollers, and outer ring center-guided retainer
	E	High capacity spherical roller bearings
Cage		
	No symbol	Standard cage
	J	Pressed steel cage
	L1	Machined brass cage
	T2	Nylon cage
Ring Modification		
	D1	Oil groove and holes
	K	1:12 tapered bore
Internal Clearance		
	C1	Radial clearance less than C2
	C2	Radial clearance less than normal
	No Suffix	Normal Radial Clearance
	C3	Radial clearance greater than normal
	C4	Radial clearance greater than C3



## NTN

### Spherical Roller Bearing

C5	Radial clearance greater than C4
CSXX	Special radial clearance; XX is mean Value in 0.001mm units

#### Tolerance

No symbol	Class 0 (equivalent to ABEC 1); standard
PX1	Special tolerance, from 1 onward
V	Special requirement, from 1 onward
VS1	Special tolerance for shaker screen bearings (C3 clearance)
VS2	Special tolerance for shaker screen bearings (C4 clearance)

### Angular Contact Ball Bearing

Prefix	Suffix	Description
TS2		Heat stabilization for up to 320°F (160°C)
TS3		Heat stabilization for up to 390°F (200°C)
TS4		Heat stabilization for up to 480°F (250°C)
BNT		High speed angular contact ball bearings
HSB		High speed angular contact ball bearings
SF		Special single row angular contact ball bearings
DE & DF		Special double row angular contact ball bearings

#### Contact Angle

No Symbol	Contact Angle: 30°
B	Contact Angle: 40°
C	Contact Angle: 15°

## NTN

### Angular Contact Ball Bearing

Chamfer		
	Xn	Special chamfer, from 1 onward (X1, X2...)
Cage		
	No Symbol	Standard cage
	J	Pressed steel cage
	L1	Machined brass cage
	T1	Phenolic cage
	T2	Plastic cage, nylon or teflon
Duplex Arrangement		
	DB	Duplex pair, back to back mounting
	DF	Duplex pair, face to face mounting
	DT	Duplex pair, tandem mounting
	G	Single bearings, flush ground universal Mount for DB, DF and DT arrangement
	GD2	Pair of universally mountable bearings
	+A	Spacer (A is normal width of spacer in mm)
Preload		
	GL	Light preload
	GN	Normal preload
	GM	Medium preload
	GH	Heavy preload
	GN	Special preload
Tolerance		
	P6	ISO class 6 (equivalent to ABEC 3)
	P5	ISO class 5 (equivalent to ABEC 5)
	P4	ISO class 4 (equivalent to ABEC 7)



## NTN

### Micro Bearing

Prefix	Suffix	Description
No Symbol		High carbon chrome bearing steel (equivalent to AISI E52100)
F		Martensitic stainless steel (equivalent to AISI 440C)
N		Beryllium copper
<b>Series</b>		
R		Inch series
W		Wider than standard width (sealed type)
WA		Non-standard sizes
RA		Wider than standard width of inch series (open and sealed types)
FL		Flanged outer ring
FLA		Flanged outer ring, provided non-standard flange dimensions
<b>Cage</b>		
	No Symbol	Pressed steel cage
	J1	Pressed stainless steel cage
	T1	Phenolic resin cage
	T2	Nylon cage
	T3	Rulon machined cage
	V	Cageless type
<b>Seal or Shield</b>		
	No Symbol	Open Type
	Z, ZZ	Steel shield(s)
	ZA, ZZA	Removable steel shield(s)
	ZA1, ZZA1	Removable stainless steel shield(s)



## NTN

### Micro Bearing

Z1, ZZ1	Stainless steel shield(s)
LB, LLB	Non-contact type rubber seal(s)
LF, LLF	Non-contact rubber seal(s)
LU, LLU	Contact type rubber seal(s)
SA, SSA	Non-contact nylon seal(s)

### Internal Clearance

No Symbol	Normal clearance
C2	Clearance less than normal
C3	Clearance greater than normal
C4	Clearance greater than C3
C2S	Low group of C2 clearance
CNS	Low group of normal clearance
CNM	Medium group of normal clearance
CNL	High group of normal clearance
C3S	Low group of C3 clearance
C3M	Medium group of C3 clearance
C3L	High group of C3

### Tolerance

No Symbol	ISO class 0 (equivalent to ABEC 1)
P6	ISO class 6 (equivalent to ABEC 3)
P5	ISO class 5 (equivalent to ABEC 5)
P4	ISO class 4 (equivalent to ABEC 7)
P2	ISO class 2 (equivalent to ABEC 9)
P5A	ISO class 5A



## NTN

### Micro Bearing

P4A	ISO class 4A
PS5	NTN PS class 5
PS4	NTN PS class 4
PX1	Special tolerance

### Prelubricant

1K	Kyodo Yushi Multemp PS No. 2
2A	Shell Alvania 2
1E	Exxon Andok C
3E	Exxon Beacon 325
6K	Klüber Isoflex Super LDS18
5C	Chevron SR12
5K	Kyodo Yushi Multemp SRL
1W	Anderson Oil Winsor Lube L245X (oil)

### Radial Ball Bearing

Prefix	Suffix	Description
TS2		Heat stabilization for up to 320°F (160°C)
TS3		Heat stabilization for up to 390°F (200°C)
TS4		Heat stabilization for up to 480°F (250°C)
<b>Series</b>		
6		Single row deep groove ball bearings
8, WC8		Single row deep groove ball bearings
BL		Maximum capacity
DE, DF		Special double row ball bearings
SC & SX		Special row ball bearings
R		Inch series



## NTN

### Radial Ball Bearing

#### Internal Design

A	Internal redesign, from A onward
U	Universal seal groove for open bearings

#### Chamfer

Xn	Special chamfer, from 1 onward (X1, X2...)
----	--------------------------------------------

#### Cage

No Symbol	Pressed steel cage
J	Pressed steel cage
T1	Phenolic cage
T2	Nylon cage

#### Seal or Shield

No Symbol	Open Type
LB, LLB	Non-contact rubber seal
LU, LLU	Double-lip contact rubber seal
LH, LLH	Light contact rubber seal
LUA, LLUA	Polyacrylic rubber seal
LUA1, LLUA1	Fluorocarbon rubber seal
Z, ZZ	Shield
Z1, ZZ1	Stainless steel shield
ZA, ZZA	Removable shield

#### Ring Modification

N	Snap ring groove on outer ring, but without snap ring
NR	Snap ring groove on outer ring, snap ring included
/X.XX	Special bore, XX.XX in mm; Ex. 5/16" bore, /7.938
/XX.X	Special OD, size XX.X in mm

#### Internal Clearance

C1	Radial clearance less than C2
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**NTN****Radial Ball Bearing**

C2	Radial clearance less than normal
C3	Radial clearance greater than normal
C4	Radial clearance greater than C3
C5	Radial clearance greater than C4
CSXX	Special radial clearance; XX is mean value in 0.001 mm units

**Tolerance**

P6	ISO class 6 (equivalent to ABEC 3)
P5	ISO class 5 (equivalent to ABEC 5)
P4	ISO class 4 (equivalent to ABEC 7)
Pxn	Special tolerance, from 1 onward(PX1, PX2...)
Vn	Special requirement, from 1 onward (V1, V2...)

**Prelubricant (Typical)**

/1E	Exxon Andok C grease
/1W	Anderson Oil Winsor Lube L-245X, MIL-L-6085A
/2A	Shell Alvania #2 grease, MIL-G-18709A
/2E	Exxon Unirex N3
/3A	Shell Oil Alvania #3 grease
/3E	Exxon Beacon 325 grease
/5C	Chevron SRI #2 grease, MIL-G-3545C
/5S	Shell Aeroshell #7 grease, MIL-G-23827A
/9B	Mobil 28, MIL-G-81322
/LO14	Shell Dolium R



## NTN

### Self-Aligning Ball Bearing

Suffix	Description
No Symbol	Standard cage
J	Pressed steel cage
T2	Plastic cage, nylon or teflon
L1	Machined brass cage
K	1:12 tapered bore
C1	Radial clearance less than C2
C2	Radial clearance less than normal
C3	Radial clearance greater than normal
C4	Radial clearance greater than C3
C5	Radial clearance greater than C4
CSXX	Special radial clearance; XX is mean Value in 0.001mm units

**RBC****RBC**

Prefix	Suffix	Description
S		Standard Cam Roll
H		Heavy Cam Roll
Y		Yoke Roller
SJ		Heavy Duty Inch Dim Roller Bearing
	S	Single seal/ Lip turned outward
	SS	Two seals/ Lips turned outward
	R	Single seal/ Lip turned inward
	RR	Two seals/ Lips turned inward
	SR	Double seal/ One lip inward/ One lip outward
	L	Sealed (camfollowers)
	W	Hex Hole
	X	Eccentric Stud

**REX****Roller Bearings Standard Identification**

Prefix	Suffix	Description
A		Two open auxiliary cap seals
B		Two auxiliary cap seals (open on housing side, closed on cover side)
X		Designates SPECIAL UNITS and must be identified. (Added after shaft size designation)
	A	One open auxiliary cap seal (cover side)
	B	One closed auxiliary cap seal (cover side)
	C	Closed end shield
	F	Four bolt (pillow blocks only)
	G	Threaded cover locked
	H	Reverse assembly
	R	Interference fitup (bearing to housing bore)
	S	Machined pilot on face of flange units
	Y	Redesignated shaft size — Not interchangeable
	72	Steel housing

**Model Number Identification**

Prefix	Suffix	Description
<b>Seal Type</b>		
Z		Clearance seal
K		Light contact seal
M		Heavy contact seal
<b>Housing Type</b>		
A		Pillow block, normal duty
AS		Pillow block, floating
P		Pillow block, heavy duty

**REX****Model Number Identification**

PS	Pillow block, floating
EP	Pillow block, normal duty
B	Flange block, normal duty
EF	Flange block, normal duty
F	Flange block, heavy duty
FS	Flange block, floating
BR	Flange cartridge block
CS	Cartridge block
MS	Cartridge block
D	Duplex

**Take-Up Nomenclature**

Prefix	Suffix	Description
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**Seal Type**

Z	Clearance seal
K	Light contact seal
M	Heavy contact seal

**Housing or Frame Type**

N	Block for protected screw frame
T	Block for center pull frame
AT	Normal Duty Takeup
NT	Protected screw takeup
HT	Heavy duty center pull takeup
FT	Elevator takeup, boot end
GT	Elevator takeup, head end



## REX

## Obsolete Nomenclature

Obsolete Model #	Current Model #	Description
P	ZEP-2000	Pillow block
PR	ZA-2000	Pillow block
ZBT	ZBR-5000	Flange cartridge block
ZC	ZT-2000	Take-up block, centerpull
ZES	ZFT-2000	Take-up, elevator, boot end
ZET	ZFT-2000	Take-up, elevator, boot end
ZFA	ZF-9000	Flange block
ZFB	ZFS-9000	Flange block, floating
ZGS	ZGT-5000	Take-up, elevator, head end
ZL	ZMC-2000	Cartridge block
ZMA	ZMC-9000	Cartridge block
ZMB	ZMC-9000	Cartridge block
ZMW	ZMC-5000	Cartridge block
ZMX	ZMC-5000	Cartridge block
ZPA	ZP-9000	Pillow block
ZPB	ZPS-9000	Pillow block, floating
ZRT	ZNT-5000	Take-up, protected screw

## RHP

### RHP

Prefix	Suffix	Definition
CM		Cone assembly of tapered roller bearing
CUV		Cup of tapered roller bearing
D		Tapered roller TWIN LINE designed from standard bearing components
JT		Seal
N, NJ, NF NU, NUP		Standard cylindrical roller bearings
N.. or ..N		Special groove on the outside diameter
Q.. or ..Q		Non ISO bore diameter
RNU		Cylindrical roller bearing without inner ring
RN		Cylindrical roller bearing without outer ring
R.. or ..R		Special corner radii
T		ISO standard tapered roller bearing Tapered roller thrust bearings with outside retainer
T.. or ..T		Bearing with a non-standard flanged outer ring
X.. or ..X		Non standard modification of the bearing envelope
X..D		Tapered roller TWIN LINE with non standard envelope
Y.. or ..Y		Material modification and/or special heat treatment (special applications)
	A	Special internal design Double row ball bearing with a polyamide cage and no filling slots
	A	Manufacturing code
	B	40° contact angle for angular contact ball bearings (7200, 7300) and 20° for tapered roller bearings Double row angular contact ball bearing with filling slots
	B22	Internal design feature of tapered roller bearings
	B33	Lubrication groove and holes in outer ring of spherical roller bearings (=W33)
	BG	Universal pairing for angular contact ball bearings (40° contact angle)
	C	Internal design modification for tapered roller bearings 15° contact angle for ball bearing
	C12	Internal design modification for tapered roller bearings



## RHP

### RHP

DB	Back-to-back pairing ("O" configuration)
DF	Face-to-face pairing ("X" configuration)
DT	Tandem pairing
D..	Special grease
E	Increased capacity for cylindrical and spherical roller bearings
E, EE	Standard single or double seals for ball bearings
E3, EE3	Single or double seals for high temperature ball bearings
E10	Front lip seal for ball bearings
E16	Front lip seal for tapered roller bearings
E22	Special radial lip seal
E30, E32	Special reinforced front lip seal
EX50	E10 seal plus E seal
F...	Code combining several special features
F107	MB-B33-J30 (MB-W33-C3)
F600	Special bearing for kiln car
F700	Ball bearing for high speed applications
F800	Shaker screen spherical roller bearing with reduced J40 clearance
F801	Shaker screen spherical roller bearing with reduced J30 clearance
F802	Shaker screen spherical roller bearing with reduced J0 clearance
FT150	Sealed single row radial ball bearing, for temperature up to 150°C (300°F)
G..	Special cage: G13: one piece steel cage for cylindrical roller bearings G14: polyamide cage G15: glass fibre reinforced polyamide cage G28: pressed steel cage for cylindrical roller bearings
H	25° angular contact ball bearings
J..	Radial internal clearance and manufacturing precision. The first digit denotes the ISO radial internal clearance category. The second digit denotes the ISO precision class, e.g.: J36: radial internal clearance category 3, ISO precision class 6 (ABEC 3)
JX0	Special radial internal clearance



**RHP****RHP**

K	1/12 tapered bore
LLS	Special labyrinth shields for spherical outside diameter bearings
M	Machined brass cage, centered on the rolling elements
MA	Machined brass cage, centered on the outer ring
MB	Machined brass cage, centered on the inner ring
M..	Special manufacturing quality control
N	ISO standard groove in outer ring for snap ring location
NR(1)	ISO standard groove in outer ring with snap ring
P6X	Tapered roller bearings of precision class ISO 6X
Q	Modified bore
R	Modified corner radius
R23	Point of maximum eccentricity marked on the inner ring
S	Spherical outside diameter
S..	Design change index
T	Flanged outer ring
UA, UB	Design change indices
V	Internal design modification
X	Standard thrust bearings 51107 X and 51206 X
Y	Polyamide cage, see G14

**Seal recesses on the inner ring**

Z	One shield
2Z	Two shields
RS	One Seal
2RS	Two seals

**No seal recesses on the inner ring**

ZR	One shield
----	------------



## RHP

### RHP

2ZR	Two shields
RSR	One seal.
2RSR	Two seals
N	Snap ring groove
NR	Snap ring groove & snap ring
ZNR	One shield on opposite side to snap ring
2ZNR	Two shields & snap ring
ZV	Full type & one shield

### Single Row Angular Contact Bearings

Prefix	Suffix	Description
B		Indicator to identify those bearings with revised preloads
Contact Angle		
	—	20°
	X2	Contact Angle: 15°
	X3	Contact Angle: 25°
	X4	Contact Angle: 30°
	X6	Contact Angle: 40°
Cage Material		
	—	Brass
	T	Laminated phenolic
Cage Location		
	—	Inner ring



## RHP

### Single Row Angular Contact Bearings

A	Outer ring		
Matching			
U	Single bearing universally faced		
DU	Duplex bearing universally faced		
Preload			
L	Light		
M	Medium		
H	Heavy		
Precision Grade			
	RHP	ABEC	ISO
EP5	EP5	5	3
EP7	EP7	7	4
EP7/9	EP7/9	Dimensionally accuracy EP7 Running accuracy EP9	
EP9	EP9	9	2



## SHATZ

### Ball Bearings

Prefix	Suffix	Description
A		Unground commercial single row radial
AC		Functional unground single row radial
AD		Unground commercial double row radial
AF		Unground commercial single row radial with flange
AFH		Unground commercial single row radial with flange and hexagon bore
AFS		Unground commercial single row radial with flange and set screws
AFSL		Unground commercial single row radial with flange, set screws, and relubrication fitting
ART		Unground commercial single row radial-thrust
AS		Unground commercial single row radial with set screws
ASL		Unground commercial single row radial with set screws and relubricating fitting
AT		Unground commercial single row thrust
AX		Unground commercial single row radial with inner ring extended on one side
AXH		Unground commercial single row radial with inner ring extended on one side and hexagon bore
AXX		Unground commercial single row radial with inner extended on both sides
BM		Ground functional precision single row radial with metric boundary dimensions
BR		Ground functional precision single row radial with inch boundary dimensions
BS		Ground functional precision single row radial with standard inch boundary dimensions
CS		Special designs
DE		Double-end stub shaft
HB		Commercial grade hanger bearing series
SE		Single-end stub shaft
SM		Special functional precision stamped adapter series



## SHATZ

### Ball Bearings

SRT	Stamped commercial single row radial thrust
TW	Unground commercial single row radial with flange and seals
W	Special functional precision wide inner ring series
WE	Special functional precision extended inner ring set screw series
WR	Ground functional precision single row radial with set screws and seals

**Bearing Type Code**

ACBB	Angular Contact Ball Bearing
AC	Accessories
all	All Products
BB	Ball Bearing
CP	Components
CU	Cartridge Unit
DRBB	Double Row Ball Bearing
DRACBB	Double Row Angular Contact Ball Bearing
FU	Flange Unit
CRB	Cylindrical Roller Bearing
RB	Roller Bearing
PB	Pillow Block
SABB	Self Aligning Ball Bearing
SRB	Spherical Roller Bearing
SRBB	Single Row Ball Bearing
SRTB	Spherical Roller Thrust Bearing
TRB	Tapered Roller Bearing
TU	Take-up Unit
YB	Y-Bearing (extended inner ring ball bearing)

## Bearing Type Code

Prefix	Suffix	Bearing Type	Definition
	A	SRB	4762 series extended inner SRB, carburized IR 120% set screw spacing
	<b>A</b>	all	Complete Parco Lubrize or Dulite coating
	A	ACBB	Contact angle 30°/example 7205 A
	A	DRACBB	Conrad type, 30% contact angle/example 5205 A
	A	TRB	Internal designed changed/example 31308 A
	A	TRB (inch)	Dimensional variation from basic cone or cup
	AB	TRB (inch)	Dimensional variation from basic flanged cup
	AC	TRB (inch)	Dimensional variation from standard cup
	AC	ACBB	Contact angle 25°/example 7008 AC
AHA			Removal sleeve with American standard thread/USA
AN			Locknut/example AN 15/USA
ARN			Removal nut for ASK-type sleeve/example ARN 18
	AH	DRACBB	Conrad type, 30% contact angle, heavy duty design/example 5310 AH
ASK	AS	TRB (inch)	Dimensional variation from basic cone or cup Removal sleeve/example ASK -15/USA
	AX	TRB (inch)	Dimensional variation from cone or cup
	B	SRB	Same as A, except 62% set screw spacing
	B	ACBB	Contact angle 40°/example 7208 B
	B	DRBB	Bearing width is greater than standard (for sealing)
	B	SRTB	Pressed cage/no cage guide ring/example 29430 B
	B	TRB (inch)	Brass cage cone
	B	TRB (inch)	Flanged cup

## Bearing Type Code

BAGM	ACBB	40° contact angle, all 4 corners equal, machined brass cage
BE	ACBB	40° contact angle, high capacity, all ISO corners
BEA	ACBB	40° contact angle, high capacity, all 4 corners equal
BW	TRB (inch)	Slotted flanged cup
C	YB	Y-bearing with cylindrical OD
C	ACBB	Contact angle 15°
CA	ACBB	Modified for duplex mounting with axial clearance less than normal
CB	ACBB	Modified for duplex mounting with Normal axial clearance
CC	ACBB	Modified for duplex mounting with axial clearance greater than normal
CD	ACBB	Contact angle 15°, outer ring piloted cage
C	SRB	Flangeless inners, two separate pressed steel window Cages, symmetrical roller, floating guide ring
C	TRB (inch)	Special high-capacity cone or dimensionally different cup
C01	all	Close inner ring running accuracy according to P6
C02	all	Extra close inner ring running accuracy according to P5
C03	all	Close outer ring running accuracy according to P6
C04	all	Extra close outer ring running accuracy according to P5
C05	all	Combination of C01 plus C03
C06	all	Combination of C02 plus C03
C07	all	Combination of C01 plus C04
C08	all	Combination of C02 plus C04
C1 <sup>2</sup>	all	Radial internal clearance less than C2
C2 <sup>2</sup>	all	Radial internal clearance less than Normal





## Bearing Type Code

C3 <sup>2</sup>	all	Radial internal clearance greater than Normal
C4 <sup>2</sup>	all	Radial internal clearance greater than C3
C5 <sup>2</sup>	all	Radial internal clearance greater than C4
C7	CRB	Precision roller tolerance
C10	all	Reduced ID and OD tolerance centered on mean
C20	all	Reduced ID tolerance approaching nominal dimension
C30	all	Reduced ID tolerance approaching low limit
C40	all	Reduced OD tolerance approaching nominal dimension
C48	all	Combination of C02 plus C04 plus C40
C50	all	Reduced OD tolerance approaching low limit
C60	all	Combination of C20 plus C50
C70	all	Combination of C20 plus C40
C77	CRB	High precision roller tolerance
C78	all	ABEC 5 or RBEC 5 tolerance
C9997	BB	High precision, ABEC-7 tolerance, standard radial internal clearance
/C15	C10 + C05	Examples of combinations of two-figure
/C18	C10 + C08	C classes for reduced dimensional
/C78	C70 + C08	and running accuracy tolerances
/C023	C02 + C3	Examples of combinations of two-figure
/C102	C10 + C2	C classes with single-figure internal
/C153	C15 + C3	clearance C classes
/C182	C18 + C2	
/C783	C78 + C3	

## Bearing Type Code

CA	SRB	Integral side flanges, one piece pronged brass cage, separate guide ring
CAB	SRB	Integral side flanges, pin type cage, separate guide ring
CABC	SRB	CAB features plus optimized internal design
CAC	SRB	CA features with optimized internal design
CACM	SRB	CAM features with optimized internal design
CACM2	SRB	CAM2 features with optimized internal design
CAM	SRB	Integral side flanges, inner ring centered one piece brass cage
CAM2	SRB	CAM features except roller centered cage
CC	SRB	C features plus optimized internal design
CCJ	SRB	CC features with inner ring centered pressed steel cage
CCY	SRB	CC features with inner ring centered pressed brass cage
CJ	SRB	C features, inner ring centered, pressed steel cage
CL3	BB	Bore, OD, and eccentricity tolerance equivalent to ABEC 3
CL7A	TRB	Standard SKF quality for pinion bearings
CL7C	TRB	Special SKF quality for pinion bearings
CY	SRB	C features with inner ring centered brass cage
D	YB	Extended inner ring ball bearing with metric bore
D	BB	Matched in pairs for duplex mounting
D	TRB (inch)	Double cone or cup
D9	BB	Deep groove ball bearing with grooves for seals/shields but without same
DA	TRB (inch)	Dimensional variation of basic double cone
DA	TRB (inch)	Double cup with spherical OD

## Bearing Type Code

DB	BB	Two matched bearings arranged back-to-back
DB	TRB (inch)	Flanged double cup
DD	TRB (inch)	Wide double cone or cup
DE	TRB (inch)	Dimensional variation of basic double cone
DF	BB	Two matched single row bearings arranged face-to-face
DS	TRB (inch)	Crowned OD double cup
DT	BB	Two matched single row bearings arranged in tandem
DT	TRB (inch)	Double cup, tapered OD
DW	TRB (inch)	Double cone or cup with keyway or slot
E	DRACBB	Filling-slot type
E	all	Increased capacity
EA	CP	Cup spacer TB inch TRB
EB	CP	Cup spacer TB inch TRB
EC	CP	Cup spacer inch TRB
EC	CRB	Increased capacity plus improved roller end to flange contact
ECA	SRB	Airmelt carburized steel OR only
ECB	SRB	Airmelt carburized steel IR only
ECC	SRB	Airmelt carburized steel, IR and OR only
ECD	SRB	Airmelt carburized steel complete
ED	CP	Cup spacer inch TRB
ED	TRB (inch)	Short double cup
EE	BB	Extra-small, inch dimension ball bearing/example EE-9
EEA	BB	Same as EE, except revised dimension/ example EEA 2, EEA 2-2Z



## Bearing Type Code

EEB	BB	Same as EE, except larger width to accommodate sealing
EE	TRB (inch)	Large bore double rib type construction cone
EH	TRB (inch)	Extra heavy series cone or cup
EL	TRB (inch)	Extra light series cone or cup
EM	BB	Ball bearing with C3 internal clearance for general purpose applications
EP	SRB	Special precision tolerances
EPCA	SRB	Same as ECA, except with special precision tolerances
EPCB	SRB	Same as ECB, except with special precision tolerances
EPCC	SRB	Same as ECC, except with special precision tolerances
EPCD	SRB	Same as ECD, except with special precision tolerances
EPTA	SRB	Same as ETA, except with special precision tolerances
EPTB	SRB	Same as ETB, except with special precision tolerances
EPTC	SRB	Same as ETC, except with special precision tolerances
EPTD	SRB	Same as ETD, except with special precision tolerances
EPVA	SRB	Same as EVA, except with special precision tolerances
EPVB	SRB	Same as EVB, except with special precision tolerances
EPVC	SRB	Same as EVC, except with special precision tolerances
EPVD	SRB	Same as EVD, except with special precision tolerances
ER	PB	Triple seal ring for pillow block/example ER 846
ETA	SRB	Vacuum melt thru hardened steel, OR only
ETB	SRB	Vacuum melt thru hardened steel, IR only
ETC	SRB	Vacuum melt thru hardened steel, IR and OR only
ETD	SRB	Vacuum melt thru hardened steel, complete

## Bearing Type Code

EVA		SRB	Vacuum melt carburized steel, OR only
EVB		SRB	Vacuum melt carburized steel IR only
EVC		SRB	Vacuum melt carburized steel, IR and OR only
EVD		SRB	Vacuum melt carburized steel, complete
	EW	SRB	Increased capacity, without the W33 feature
	F	TRB (inch)	Cone assembled with non-metallic molded cage
F		FU	Pressed steel flange, 3-bolt/example F 40
	F	all	Machined steel or special cast iron cage, roller centered
	F3	SRB	Machined ductile iron cage, roller centered
	FC	SRB	Machined steel or special cast iron cage IR centerd
F	FM	FU	3-Bolt pressed steel flanged unit with YET series bearing/example F 1-1/16FM
FD		FU	FY in ductile iron, non-relube, with 4792 series bearing
FD	G	FU	FY in ductile iron, relube, with 4792 series bearing
FD	P	FU	FY in ductile iron, reverse mounted, non-relube, 4792 series bearing
FD	PG	FU	FY in ductile iron, reverse mounted, re-lube, 4792 series bearing
FDL		FU	FYL in ductile iron, non-relube, with 4542 series bearing
FDL	G	FU	FYL in ductile iron, with 4542 VSB series bearing
FDP		FU	FYP in ductile iron, non-relube, with 4782 series bearing
FDP	G	FU	FYP in ductile iron, relube 4782-VSB series bearing
FDP	P	FU	FYP in ductile iron, reverse mounted, non-relube, 4782 series bearing
FDP	PG	FU	FYP in ductile iron, reverse mounted, relube, 4782-VSB series bearing



## Bearing Type Code

FDT		FU	FYT in ductile iron, non-relube, with 4792 series bearing
FDT	G	FU	FYT in ductile iron, re-lube, with 4792 series bearing
FDT	P	FU	FYT in ductile iron, reverse mounted, non-relube, 4792 series bearing
FDT	PG	FU	FYT in ductile iron, reverse mounted, re-lube, 4792 series bearing
FDTL		FU	FYTL in ductile iron, non-relube, with 4542 series bearing
FDTL	G	FU	FYTL in ductile iron, re-lube, with 4542-VSB series bearing
FDTL	P	FU	FYTL in ductile iron, reverse mounted, non-relube, 4542 series bearing
FDTL	PG	FU	FYTL in ductile iron, reverse mounted, re-lube, 4542 VSB series bearing
FDTP		FU	FYTP in ductile iron, non-relube, with 4782 series bearing
FDTP	G	FU	FYTP in ductile iron, re-lube, with 4782-VSB series bearing
FDTP	P	FU	FTYP in ductile iron, reverse mounted, non-relube, 4782 series bearing
FDTP	PG	FU	FTYP in ductile iron, reverse mounted, re-lube, 4782-VSB series bearing
FDTX		FU	FYTX in ductile iron, non-relube, with 4772 series bearing
FDTX	G	FU	FYTX in ductile iron, re-lube, with 4772 series bearing
FDTX	P	FU	FYTX in ductile iron, reverse mounted, non-relube, 4772 series bearing
FDTX	PG	FU	FYTX in ductile iron, reverse mounted, re-lube, 4772 series bearing
FDX		FU	FYX in ductile iron, non-relube, with 4772 series bearing
FDX	G	FU	FYX in ductile iron, re-lube, with 4772 series bearing
FDX	P	FU	FYX in ductile iron, reverse mounted, non-relube, 4772 series bearing
FDX	PG	FU	FYX in ductile iron, reverse mounted, re-lube, 4772 series bearing



## Bearing Type Code

FE		TA	Bolster springs/example FE-148/textile application
FL		FU	Same as FP, except with 4542 agricultural seal bearing series
FP		FU	3-Bolt pressed steel round flange 4782 series bearing/example FP 102
	FP	SRB	Same as -F, except slotted or broached pockets
	FPC	SRB	Same as -FP, except inner ring centered
	FPS	SRB	Same as -FP, except outer ring centered
	FR	TRB (inch)	Full roll type cone- no cage
	FS	SRB	Machined steel or special cast iron cage OR centered
FT		FU	2-Bolt pressed steel elongated flange/example FT 40
FT	FM	FU	2-Bolt pressed steel flange unit with YET series bearing/example FT 1-1/16 FM
FTL		FU	Same as FTP, except with 4542 series bearing
FTP		FU	2-Bolt pressed steel elongated flange, 4782 series bearing/example FTP 102
FY		FU	4-Bolt cast iron flanged housing, 4792 series bearing/example FY 102
FY	FM	FU	4-Bolt cast iron flanged housing with YET series bearing/example FY 1-3/16 FM
FY	TM	FU	Same as FY-FM, except with YAR series bearing/FY 1-1/16TM
FY	WM	FU	Same as FY-FM, except with YEL series bearing/example FY 1-3/16WM
FY	X	FU	4-Bolt cast iron flanged housing, 4772 series bearing with eccentric collar/example FY 102 X
FYL		FU	Same as FYP, except with 4542 series bearing
FYM	TM	FU	Same as FY-TM, except medium duty/example FYM 2-15/16TM
FYP		FU	4-Bolt cast iron flanged housing, 4782 series bearing/example FYP 102



## Bearing Type Code

FYR		FU	4-Bolt cast iron flanged round housing, 4762 series bearing/example FYR 107
FYR	P	FU	Same as FYR, except reverse flange mounting/FYR 107 P
FYT	FM	FU	2-Bolt cast iron flanged housing with YET series bearing/example FYT 1/2 FM
FYT	TM	FU	Same as FYT-FM, except with YAR series bearing/example FYT 1/2FM
FYT	WM	FU	Same as FYT-FM, except with YEL series bearing/example FYT 3/4 WM
FYTL		FU	Same as FYTP, except with 4542 series bearing
FYTM	TM	FU	Same as FYT-TM, except medium duty/example FYTM 2-3/16TM
FYTP		FU	2-Bolt cast iron flange unit with 4782 series bearing
	G	ACBB	Modified for duplex mounting with axial clearance
	GA	ACBB	Modified for duplex mounting with light preload
	GB	ACBB	Modified for duplex mounting with medium preload
	GC	ACBB	Modified for duplex mounting with heavy preload
	G02	ACBB	9kg (20lbs) preload
	G05	ACBB	23kg (50lbs) preload
	G1	ACBB	45kg (100lbs) preload
	G2	ACBB	90kg (200lbs) preload
	G5	ACBB	228kg (500lbs) preload
G	FM	CU	Cartridge unit with sphered OD rubber mounting with YET series bearing/example G 15/16 FM
GL		CU	Same as GP, except with 4542 series bearing
GN	A	CRB	Hi-capacity N-series with Hyatt corner radius
H		TRB (inch)	Heavy series cup or cone



## Bearing Type Code

	H	DRACBB	Pressed hardened steel snap cage, ball centered
HA		AC	Adapter sleeve for American Standard shaft/example HA 2313
			Case hardened bearing or bearing component. For closer identification
			HA is followed by one of the following figures:
			0- Complete bearing
			1- Outer & Inner rings
	HA	all	2- Outer ring
			3- Inner ring
			4- Outer ring, inner ring & rolling elements
			5- Rolling elements
			6- Outer ring & rolling elements
			7- Inner ring & rolling elements
	HB	all	Bainite hardened bearing or bearing component. For closer identification,HB is followed by one of the figures listed under HA
	HC	all	Pressed hardened steel snap cage, inner ring centered
	HE	all	Bearing or bearing component made from vacuum remelted steel. For closer identification, HE is followed by one of the figures listed under HA
HH		TRB (inch)	Heavy-heavy series cup or cone
HM		TRB (inch)	Heavy-medium series cup or cone
	HM		Martensite hardened bearing or bearing component. For closer identification, HM is followed by one of the figures listed under HA
HMV		AC	Hydraulic nut, metric threads
HMVC		AC	Hydraulic nut, inch threads



## Bearing Type Code

HMVP	A	AC	Hydraulic nut/example HMVP 68 A
HNC	A	CRB	Carburized, two snap-rings in OR two lips in IR, J-cage/example HNC 206 A
HNC	AB	CRB	Same as HNC-A except width non-conforming to ISO standards
HNC	ABV	CRB	Same as HNC-AV except width non-conforming to ISO standards
HNC	AV	CRB	Carburized, two snap-rings in OR, two lips in IR, no cage
HNJ	A	CRB	Carburized, two snap-rings in OR, one lip in IR, J-cage/HNJ206 A
HNJ	AB	CRB	HNJ-A except width non-conforming to ISO standards
HNU		CRB	Outer ring of snap-ring type cylindrical roller bearing
HNU	A	CRB	Cylindrical roller bearing, two snap-rings in OR, straight IR, J-cage/HNU 206A
HNU	AB	CRB	HNU-A except width non-conforming to ISO standards
HNU	J	CRB	Snap-ring type cylindrical roller bearing with pressed steel cage
J		TRB (inch)	Boundary dimensions metric with metric boundary tolerances
	J	all	Pressed unhardened steel cage, rolling element centered
	JC	all	Pressed unhardened steel cage, inner ring centered
	JCE	all	Same as JC except phosphated
	JE	all	Same as J except phosphated
	JR	all	Pressed unhardened steel, riveted cage assembly for large thrust bearing
K		TRB (inch)	Special heavy double cup or roller assembly
K		TRB (inch)	European inch taper
	K	all	Bearing with 1 to 12 tapered bore/example 1207K
	K30	all	Bearing with 1 to 30 tapered bore/example 24140 CK30



## Bearing Type Code

L		all	Separate inner or outer ring of separable bearing (not marked on component)
L		TRB (inch)	Light series cup or cone
	L	all	Machined aluminum or light alloy cage, rolling element centered
	LC	all	Machined aluminum or light alloy cage, inner ring centered
LER		PB	Triple seal ring for pillow block/example LER 14
LHNC	A	CRB	Inner ring of HNC-A/example LHNC 206 A
LHNC	AB	CRB	Same as LHNC-A except width non-conforming to ISO standards
LHNJ	A	CRB	Inner ring of HNJ-A/example LHNJ 206 A
LHNJ	AB	CRB	Same as LHNJ-A except width non-conforming to ISO standards
LHNU	A	CRB	Inner ring of HNU-A/example LHNU 206 A
LHNU	AB	CRB	Same as LHNU-A except width non-conforming to ISO standards
LL		TRB (inch)	Light-light series cone or cup
LM		TRB (inch)	Light-medium series cup or cone
	LS	BB	Molded land-riding contact seal
	LW1	TRB	Cone with one special keyway
M		SRB	Single row spherical roller bearing
M		TRB (inch)	Medium series cup or cone
	M	all	Machined brass cage, rolling element centered
	M1	ACBB	Machined brass cage, old design
	M2	SRB	Roller centered cage and no guide-ring
	M2	CRB	Traction motor bearing with solid brass drilled cage, roller-centered
	MA	all	Machined brass cage OR centered



## Bearing Type Code

MB		AC	Lockwasher/example MB-18
	MB	all	Machined brass cage IR centered
MBL		AC	Lockwasher/example MBL-36
	MC	all	Machined brass cage, inner ring centered
	MC5	all	Cage-same as MC, except silicon iron bronze material
	MP	SRB	Machined brass cage with broached pockets, roller-centered
	MPC	SRB	Same as MP, except inner ring centered
	MPC5	SRB	Same as MPC, except silicon iron bronze material
	MPS	SRB	Same as MP, except outer ring centered
	MPS5	SRB	Same as MP, except silicon iron bronze material
	MS	SRB	Machined brass cage outer ring centered
	MS5	SRB	Same as MS, except silicon iron bronze material
N		CRB	Two flanges in IR, no flanges in OR
N		AC	Locknut/example N08/USA
	N	BB	Groove in outer ring but without snap-ring/example 6205 N
NA		TRB (inch)	Non-adjustable cone/factory adjust/used with double cup
NF		CRB	Two flanges in IR one flange in OR
	NFR	TRB (inch)	Full-roll cone- no cage
NH		CRB	Same as NJ, plus stabilizing ring
NJ		CRB	One flange in IR, two flanges in OR
NN		CRB	2-row cylindrical bearing/flanged inner, flangeless outer
NN	K	CRB	Same as NN, except 1 to 12 taper bore/example NN 3007 K
NP		CRB	2-flange inner, 1-flange outer with plate

## Bearing Type Code

	NR	BB	Snap ring on outer ring
NU		CRB	No flanges in IR, two flanges in OR
NUP		CRB	2-flange outer, 1-flange inner plate
	NW	TRB (inch)	Slotted front face on NA-type cone
	NW2	TRB (inch)	Cone with 2 special Woodruff keys
	NW4	TRB (inch)	Cone with 1 keyway extended through cone bore
P		AC	Lock-plate for locknut/example P 76
	P	all	Injection molded cage of glass fibre reinforced plastic, rolling element centered
	P	SRB	Split OR/example 22320 P
	PA9	all	ISO tolerance approximately equivalent to ABEC 9
	PA97	all	ISO tolerance approximately equivalent to ABEC 9 (dim) and ABEC 7 (running)
	P4	all	ISO tolerance approximately equivalent to ABEC 7
	P5	all	ISO tolerance approximately equivalent to ABEC 5
	P6	all	ISO tolerance approximately equivalent to ABEC 3
	Q	TRB	Improved friction torque characteristics and raceway geometry
	Q	BB	Quiet running bearing
	QE5	BB	Vibration level lower than QE6
	QE6	BB	Special vibration level for quiet running
R		all	Inner or outer ring with roller and cage assembly (or roller set) of separable bearing (not marked on component)
R		RB	Separable bearing without removable inner or outer ring
R		SRBB	Small size single row, deep-groove ball bearing/example R 9

## Bearing Type Code

	FM	CU	Rubber mounted cylindrical cartridge unit with YET series bearing/ example R 7/8 FM
	RB	TRB (inch)	Cup with snap ring
RGNU-F		CRB	Outer ring cage roller assembly stave type G series bearings
RHNU	BJ	CRB	Same as RHNU-J, except width non-conforming to ISO standards
RHNU	J	CRB	Outer ring roller assembly of HNJ-A and HNU-A/example RHNU 206 J
RL		CU	Same as RP, except with 4542 series bearing
	RL	all	Followed by non-significant numbers/special radial internal clear- ance
RN		CRB	2-flange inner, no outer ring/example RN 210
RN		AC	Removal nut for SK-sleeve/example RN 12
RNU		CRB	2-flange outer, no inner ring/example RNU 210
RP		CU	Rubber mounted cylindrical cartridge unit with 4782 series bear- ing/example RP 14
	RS	BB	Seal of plate and synthetic rubber on one side
	RS1	BB	Non-removable molded nitrile seal on one side
	RS2	BB	Same as RS1 but seal molded from Viton®
	2RS	BB	Synthetic rubber seal on both sides
	RSN	SRBB	Synthetic rubber seal on side opposite snap ring groove
	RSNBR	SRBB	Same as RSNB, except with snap-ring
	RSNR	SRBB	Same as RSN, except with snap-ring
	RSZ	BB	RS seal on one side, Z-plate on the other side
	RZ	BB	Low friction seal of plate and synthetic rubber on one side
	2RZ	BB	Low friction seal of plate and synthetic rubber on both sides



## Bearing Type Code

S0			Bearing rings dimensionally stabilized for operating temperature up to + 150°C (302°F)
S1			Bearing rings dimensionally stabilized for operating temperature up to + 200°C (392°F)
S2			Bearing rings dimensionally stabilized for operating temperature up to + 250°C (482°F)
S3			Bearing rings dimensionally stabilized for operating temperature up to + 300°C (572°F)
S4			Bearing rings dimensionally stabilized for operating temperature up to + 350°C (662°F)
S		AC	Adapter sleeve/example S-15, part of SNW 15
S	FM	PB	2-Bolt, pressed steel pillow block with YET series bearing/example S 1-3/16 FM
	S	TRB (inch)	Dimensional variation from basic cone
SAF		PB	Split pillow block cast iron housing with triple ring seals/example SAF 609
SAF	-210	PB	Same as SAF except contact seals
SAF	T	PB	Split pillow block with taconite contact seals
SAF	TV	PB	Split pillow block with taconite "V" ring seals
SAFS		PB	SAF pillow block of cast steel
SDAF		PB	Split pillow block cast iron housing with triple seals/example SDAF 530
SK		AC	Removable sleeve/example SK 28
SL		PB	Same as SP, except with 4542 series bearing
SNP		AC	Adapter with nut and lockplate/example SNP 3098
SNW		AC	Adapter with nut and lockwasher/example SNW 08
SP		PB	Pressed steel pillow block with 4782 series bearing/example SP 102



## Bearing Type Code

	SP	all	SKF special precision approximately equivalent to ABEC 5 (dim) and ABEC 7 (running)
	SQ	BB	Super quiet running bearing
SR		AC	Stabilizing ring for pillow block/example SR 20-17, SR 1610
SR	FM	PB	2-Bolt, pressed steel pillow block, rubber insert, with YET series bearing/example SR 15/16 FM
SRL		PB	Same as SRP, except with 4542 series bearing
SRP		PB	Pressed steel pillow block, rubber mounted with 4782 series bearing/example SRP 14
	SS	PB	Back up plate seal on one side
	2SS	BB	Back up plate seal on both sides
	SW	TRB (inch)	Dimensional variation from basic cone with keyway, cone or cup with slot or keyway
	SW	TRB (inch)	NA-type cone with slotted front face
	SWE	TRB (inch)	NA-cone, slot front-face, extended back-face, ground for seal
SY		PB	Unit ball bearing cast iron pillow block with 4792 series bearing/example SY 100
SY	FM	PB	Cast iron pillow block with YET series bearing/example SY 1-1/16 FM
SY	TM	PB	Same as SY-FM, except with YAR series bearing/example SY 2-15/16 TM
SY	WM	PB	Same as SY-FM, except with YEL series bearing/example SY 2-7/16 WM
SY	X	P	Same as SY, re-lube with 4772 series bearing/example SY 100 X
SYE		PB	Pillow block unit with 4762 series spherical bearing/example SYE 2-7/16
SYE	N	PB	Pillow block unit with stepped sleeve spherical bearing/example SYE 2-7/16 N





## Bearing Type Code

SYH		PB	Same as SY except center height, with 4792 series bearing/example SYH 104
SYH	FM	PB	Same as SY-FM, except center height
SYH	TM	PB	Same as SY-TM, except center height
SYH	WM	PB	Same as SY-WM, except center height
SYH	X	PB	Same as SYH, with 4772 series bearing/example SYH 104 X
SYHL		PB	Same as SYHP, except with 4542 series bearing/example SYHL 102
SYHP		PB	Same as SYH, except with 4782 series bearing/example SYHP 102
SYL		PB	Same as SYP, except with 4542 series bearing/example SYL 102
SYM	TM	PB	Same as SY-TM, except medium duty/example SYM 1-7/16 TM
SYP		PB	Same as SY, except 4782 series bearing/example SYP 102
SYR		PB	Pillow block unit with 4762 series spherical bearing/example SYR 2-1/2
SYR	N	PB	Pillow block unit with stepped sleeve spherical bearing/example SYR 2-1/2 M
T		CRB	T-preceding prefix N, NF, NH, NJ, NP, NU, NUP, RN, or RNU is same as the prefix with boundary dimensions and basic load rating equivalent to Torrington
	T	BB	Phenolic cage, ball centered/example 6305 T
	T	PB	With taconite contact seal
	T	TRB (inch)	Cup with tapered OD
	T	TRB (inch)	Cone with tapered bore
	TA	PB	Same as T, with button head grease fitting
TB		TU	Take-up unit with 4792 series ball bearing/example TB 104
	TB	PB	Same as T, with giant button head grease fitting
TBL		TU	Same as TBP, except with 4542 series bearing



## Bearing Type Code

TBP		TU	Take-up unit with 4782 series ball bearing/example TBP 104
TBR		TU	Center pull take-up unit with 4762 series spherical bearing/example TBR 2-3/16
TB	X	TU	Take-up unit with 4772 series ball bearing/example TB 104 X
TBY	FM	TU	Take-up unit with YET series bearing/example TBY 2-3/16 FM
TBY	TM	TU	Same as TBY-FM, except with YAR series bearing/example TBY 1/2 TM
TBY	WM	TU	Same as TBY-FM, except with YEL series bearing/example TBY 3/4 WM
TBYM	TM	TU	Same as TBY-TM, except medium duty/example TBYM 1-15/16 TM
	TC	BB	Phenolic cage inner ring centered/example 6204 TC
	TD	TRB (inch)	Double cone with tapered bore
TER		PB	Taconite contact seal
TER	A	PB	Same as TER, with button head grease fitting
TER	B	PB	Same as TER, with giant button head grease fitting
TER	V	PB	Taconite "V" ring seal
TER	VA	PB	Same as TER-V, with button head grease fitting
TER	VB	PB	Same as TER-V, with giant button head grease fitting
	TN	all	Nylon cage, rolling element centered/example 6203 TN
	TN9	all	Nylon glass fibre filled cage, rolling element centered/example 6203 TN9
TFT		TU	Top mount take up frame (only)
TRH		TU	Top pull take-up unit (straight bore mount) without adjusting frame/example TRH 2-7/16
TRH	PA	TU	Top angle take-up frame (straight bore mount)/example TRH 2-7/16 PA

## Bearing Type Code

	TS	BB	Phenolic cage, outer ring centered/example 6204 TS
	TV	PB	Same as T, except with taconite "V" ring seal
	TVA	PB	Same as TV, with button head grease fitting
	TVB	PB	Same as TV, with giant button head grease fitting
TU	TM	TU	Same as TBY-TM, except imported
TY	R	TU	Cats iron take-up housing (adapter mount)/example TY 203 R
TY	R-PA	TU	Take-up unit (adapter mount) with adjusting frame/example TY 103 R-PA 12
	U	YB	Y-bearing without locking collar
	U	AC	Aligning washer for thrust ball bearing/example 708 U
	V	CRB	Full complement bearing (without cage)
	VAA <sup>2</sup>	all	Special characteristics in basic size-letters insignificant
	VAB <sup>2</sup>	all	Special characteristics in basic size-letters insignificant
	VAC <sup>2</sup>	all	Special characteristics in basic size-letters insignificant
	VSA <sup>2</sup>	all	Special characteristics in bearing series-letters insignificant
	VS <sup>B</sup>	all	Special characteristics in bearing series-letters insignificant
	VSC <sup>2</sup>	all	Special characteristics in bearing series-letters insignificant
	VA000		

## Obsolete SKF Designations of Bearing Characteristics

Prefix	Suffix	Definition
	B	Pressed brass cage, replaced by Y
	BD	Flushground for back-to-back mounting only
	BJ	Bore steel cage, replaced by F
	C001	Radial clearance less than C002, replaced by C1
	C002	Radial clearance less than normal, replaced by C2
	C003	Radial clearance greater than normal, replaced by C3
	C0034	Radial clearance greater than C003, replaced by C4
	C004	Radial clearance greater than C0034, replaced by C5
	C005	Extra quiet running standard bearing, replaced by C6
	C010	Inner ring with close running accuracy, replaced by C01
	C150	(Old P) precision. Approximately ABEC 3. Use standard bearing
	C151	(Old PC) precision, reduced internal clearance. Approximately ABEC 3. Use standard bearing with C2 clearance
	C152	(Old PE) precision, reduced internal clearance. Approximately ABEC 3. Use standard bearing with C2 clearance
	C170	(Old P) precision. Approximately ABEC 5. Replaced by C78
	C171	(Old PC) precision, reduced internal clearance. Approximately ABEC 5. Replaced by C782
	C172	(Old PE) precision, reduced internal clearance. Approximately ABEC 5. Replaced by C782
	C780	Super precision, replaced by C78
	D	Flush ground for back-toback mounting only wired together in pairs
	D	Dural cage, replaced by L
	F	Increased internal clearance, replaced by C3

## Obsolete SKF Designations of Bearing Characteristics

FL	Felt seal bearing
FLB	Felt seal bearing, extra wide outer ring
NFL	Cylindrical roller bearing, one flange on outer ring, light type, replaced by NF 200
NFM	Cylindrical roller bearing, one flange on outer ring, medium type, replaced by NF 300
NFS	Cylindrical roller bearing, one flange on outer ring, heavy type, replaced by NF 400
NJL	Cylindrical roller bearing, double flanged outer ring, single flanged inner ring, light type, replaced by NJ 200
NJM	Cylindrical roller bearing, double flanged outer ring, single flanged inner ring, medium type, replaced by NJ 300
NJS	Cylindrical roller bearing, double flanged outer ring, single flanged inner ring, heavy type, replaced by NJ 400
NL	Cylindrical roller bearing, double flanged inner ring, flangeless outer ring, light type, replaced by N200
NM	Cylindrical roller bearing, double flanged inner ring, flangeless outer ring, medium type, replaced by N 300
NS	Cylindrical roller bearing, double flanged inner ring, flangeless outer ring, heavy type, replaced by N 400
NUL	Cylindrical roller bearing, double flanged outer ring, light type, replaced by NU 200
NUM	Cylindrical roller bearing, double flanged outer ring, medium type, replaced by NU 300
NUS	Cylindrical roller bearing, double flanged outer ring, heavy type, replaced by NU 400
P	Super precision, approximately ABEC 5, replaced by C78
PC	Super precision, reduced internal clearance approximately ABEC 5 replaced by C781
PE	Super precision, reduced internal clearance approximately ABEC 5 replaced by C782
R	New SAE width on double row deep groove bearings
RC	Special internal radial clearance (Followed by figures indicating amount of radial clearance in microns, eg RC 200 to 300)
S	Denotes special bearing



## Obsolete SKF Designations of Bearing Characteristics

U	Aligning washer for thrust bearings
X	Self-aligning, extended inner ring

## Obsolete Oil and Grease Designations

Code	Type
LT1	Beacon M-285
LT2	Royco 6A (AN-G-3)
LT3	Norma 66C
LT4	Texaco RCX-146-100
LT5	Royco 631
LT6	Royco 94
LT7	WS-465
LT8	Royco 100
LT9	Texaco 1916 Uni-Temp (MIL-G-3278 replaced by Code LA)
LT10	Beacon M-325 (MIL-G-3278) Replaced by Code LB
LT11	Esso 5413
LT12	Texaco 984 1888 Lo Temp (MIL-G-1421) Replaced by Code CA
LT13	Texaco 1957 (AN-G-10)
LT14	Shell A-A (MIL G-109224) Replaced by Code NA
LT15	Midco Instrument Grease #287 (MIL-G-15793) Replaced by Code LC
LT16	Lubriplate Low Temperature
MT1	Wilson Brower 300-1 Replaced by Code GA
MT2	Esso WS 2229



## Obsolete Oil and Grease Designations

MT3	Royco 7
MT4	Master Lubricants M31 Replaced by Code MA
MT5	Master Lubricants M6
MT6	New York & New Jersey A29 Special
MT7	New York & New Jersey S-57
MT8	Gulf Supreme #0
MT9	Andok B (Std Oil of NJ) (MIL-G-18709) Replaced by Code TA
MT10	New York & New Jersey W56 Replaced by Code MB
MT11	Texaco Regal Starfak #2 (MIL-G-7711) Replaced by Code TB
MT12	Lubriplate Ball Bearing Grease
MT13	Valvoline Oil Co. Tectyl #437 (MIL-C-11796) Replaced by Code GC
MT14	Esso Aviation Genreal Purpose #1 (ANG-15) Replaced by Code TC Replaced by Code TC
MT15	Mobil Grease Aero General Purpose (ANG 15) Replaced by Code TD
MT16	Ferro-Coat Oil #354 Replaced by Code BA
MT17	Socony Vacuum Grease BRB Lifetime Replaced by Code MC
MT18	Unoba Light Grease
MT19	Shell Alvania #2 Grease (MIL-G-18709) Replaced by Code TE
MT20	Andok BR (Standard Oil of NJ) Replaced by TJ
MT21	Shell Cyprina #3 Replaced by Code MD
MT22	Lubrico M-3 Special
MT23	Molykote BR2
MT24	Wilson Brower 300-1-C Replaced by Code GB
MT25	Texas 979 Replaced by Code ME

**Obsolete Oil and Grease Designations**

MT26	Aeroshell #11 Grease (MIL-G-3278) Replaced by Code LD
MT27	Standard Oil California RPM Aviation Grease #1 (MIL-G-7711)
MT28	Texas #2301 Journal Roller Bearing Grease Replaced by Code MF
MT29	Shell Alvania Grease “B” Replaced by Code MG
MT40	Lubriplate #107 Replaced by Code MH
MT41	Aeroshell #14 Grease Replaced by Code NB
MT42	Shell Alvania Grease #3 Replaced by Code MJ
HT1	New York and New Jersey S58 (MIL-G-18709) Replaced by Code TF
HT2	Andok C (Std Oil of NJ) Replaced by Code HA
HT3	Royco 5N (MIL-L-3545)
HT4	Lubriko M-24M (MIL-G-18709) Replaced by Code TG
HT5	S-59
HT6	Andok 260 (MIL-L-3545) Replaced by Code HB
HT7	Standard Oil California RPM Aviation #2 (MIL-L-3545) Replaced by Code HC
HT8	Texaco 1996 Uni-Temp 500 Replaced by Code HD
HT9	Texaco TG 3007 (MIL-L-3545) Replaced by Code HE
HT10	Calol-OHT Grease Replaced By Code HF
HT11	Rycon #2 (Std Oil of Indiana) Replaced by Code HG
LHT1	Dow Corning DC33 (Light) Replaced by Code RA
LHT2	Dow Corning DC44 (Light) (MIL-L-15719) Replaced by Code RB
LHT3	Templube #79 Grease (Nat Engr Prod Inc)
LHT4	Keystone M89 Silicone Grease (MIL-L-15719) Replaced by Code SA
LHT5	Dow Corning DC-4 Silicone Replaced by Code SB





## Obsolete Oil and Grease Designations

LHT6	Standard of Indiana Super-Mil ASU-M-100 Replaced by Code SC
LHT7	Dow Corning DC44 Medium (MIL-L-15719)
LHT8	Standard of Indiana Super-Mil ASU-M40 Replaced by Code SD
LHT9	Pneumatic Grease #55 (MIL-L-4343) Replaced by Code SE
L01	Univis P-48 Oil
L03	Pioneer #10 Oil
L04	Silicone #9981 LT 9 R1 Oil
L05	Esso 4035 Rust Preventive (MIL-L-644) Replaced by Code FA
L06	Univis P-38 (MIL-L-6085) Replaced by Code DA
L07	Aeroshell #12
L08	Shell Oil L-191
L09	Esso Aviation Instrument Oil (MIL-L-7870) Replaced by Code DC
M02	Houghton's Light Clock and Chronometer Oil
M03	Nye Oil
M04	Pioneer #1 Oil
M05	470038 diluted with Afco solvent (One part oil to fifteen parts solvent)
M06	Univis J-58 Oil
M07	Thixotropic Oil 832-20 (Wilson & Brower) Replaced by Code FB
M08	Esso Turbo-15 (MIL-L-7808) Replaced by Code DB
M09	Esso Turbo-16 (MIL-C-8188 Grade "A") Replaced by Code FC



## SNR

## Angular Contact Ball Bearings

Suffixes	Definition
<b>Contact Angle</b>	
C	15°
H	25°
	Cage
V	High speed feature for 71900/7000 series
G1	High capacity feature for 7200 series
<b>Mounting Arrangement</b>	
U	Universal bearing
DU	Universal pair
DB	Back to back pair
DF	Face to face pair
DT	Tandem pair
Q16	Triple set
Q21	Quad set
<b>Preload</b>	
7	Light
8	Medium
9	Heavy
X	Special
<b>Precision Class</b>	
4	ISO 4/ ABEC 7/ DIN P4
2	ISO 2/ ABEC 9/ DIN P2

## STEYR

### Rolling Bearings

Prefixes	Definition
K	Cage with rolling elements (ball or roller set)
L	Lipless ring (mostly of a separable bearing)
R	Bearing ring (inner or outer ring) with roller set
RB	Ball
RC	Cylindrical roller
RS	Barrel-shaped roller
RT	Tapered roller
BO	Loose rib of a cylindrical roller bearing
W	Shaft washer of a thrust ball bearing, single acting
M	Centre washer of a thrust ball bearing double acting
B	Spherical housing washer of a thrust ball bearing, single or double acting
U	Support washer of a thrust ball bearing, single or double acting

### Rolling Bearings

Suffixes	Definition
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#### Internal Construction

A,B,C	These letters are used for the identification of changed design characteristics
E	Cylindrical roller bearing with reinforced internal construction
G	Universal type of single-row angular contact ball bearings. Both O and X arrangements have a small amount of clearance (bearing seat j5/J6)
GO	Bearing such as G, but clearance O
GL	Bearing such as G, but with a small preload
V	Bearing without cage (full complement ball or full complement roller bearing)

## STEYR

### Rolling Bearings

VH	Bearing such as V, but with self-retaining roller set
S	Bearing self-retaining (only with otherwise separable bearings)
<b>External dimensions and external design</b>	
X	Bearings and accessory parts with external dimensions altered to conform to the international standard ISO. The symbol is only used for a transition period
K	Tapered bore bearing, taper 1:12
K 30	tapered bore bearing, taper 1:30
N	Bearing with snap ring groove in the outer diameter of the outer ring
2N	Bearing with two snap ring grooves in the outer diameter of the outer ring
NR	Bearing with snap ring groove and appurenant snap ring
N 1	Bearing with one supporting groove in the outer ring
N 2	Bearing with two supporting grooves on one side of the outer ring
N 3	Bearing with one snap ring groove on the one side and one supporting groove on the other side of the outer ring
N 4	Bearing with one snap ring groove on the one side and two supporting grooves on the other side of the outer ring
N 5	Bearing with one snap ring groove and one supporting groove on the same side of the outer ring
N 6	Bearing with one snap ring groove and two supporting grooves on the same side of the outer ring
R	Bearing with collar on the outer ring
D	Double-row bearing with split inner ring or two-part adapter sleeve
P	Spherical roller bearing with split outer ring
B	Raceway of lipless ring, spherical
2 W	Thrust ball bearing with two shaft washers
2 G	Thrust ball bearing with two housing washers

## STEYR

### Rolling Bearings

#### Sealing

Z	Bearing with shield (non-rubbing seal) on one side
2 Z	Bearing with shields on both sides
RS	Bearing with seal (rubbing seal) on one side
2 RS	Bearing with seals on both sides
ZN	Bearing with shield (seal) and snap ring groove on the opposite side
ZNB	Bearing with shield (seal) and snap ring groove on the same side
ZNBR	Bearing such as ZNB (RSNB), however, with snap ring

#### Cage

F	Steel cage
L	Light metal cage
M	Brass cage
T	Plastic cage with plies of fabric
TN	Plastic cage
TG	Plastic cage with glass fibre filling
TM	Plastic cage with MoS <sub>2</sub> filling
TC	Plastic cage with graphite filling
J	Pressed steel cage
Y	Pressed brass cage
A	Guided by outer ring
B	Guided by inner ring
P	Metal cage: one-part cage (window cage) Plastic cage: closed on both sides
E	Bonderized cage

## STEYR

### Rolling Bearings

H	Hardened steel cage
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T	Plastic coated cage
---	---------------------

#### Tolerances

P 0	(ABEC 1) Standard tolerance (without symbol)
-----	----------------------------------------------

P 6	(ABEC 3) Closer tolerance
-----	---------------------------

P 5	(ABEC 5) Closer tolerance
-----	---------------------------

P 4	(ABEC 7) Closer tolerance
-----	---------------------------

#### Clearance

C 1	Radial clearance smaller than C 2
-----	-----------------------------------

C 2	Radial clearance smaller than standard
-----	----------------------------------------

C 0	Radial clearance standard (without symbol)
-----	--------------------------------------------

C 3	Radial clearance greater than standard
-----	----------------------------------------

C 4	Radial clearance greater than C 3
-----	-----------------------------------

C 5	Radial clearance greater than C 4
-----	-----------------------------------

Q 6	Low noise
-----	-----------

#### Thermal Stability

S 1	up to limiting temperature 200°C
-----	----------------------------------

S 2	up to limiting temperature 250°C
-----	----------------------------------

S 3	up to limiting temperature 300°C
-----	----------------------------------

S 4	up to limiting temperature 350°C
-----	----------------------------------

#### Special Design

SV	Detail according to customer's requirements
----	---------------------------------------------

SV20	W33
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## STEYR

### Rolling Bearings

SV34	Shaker
SV34A	Shaker and oil holes in OR (no groove)
SV34B	Shaker and W33
SV34C	Slip fit bore shaker

### Lubricants

LT	Low temperature ranges
MT	Medium temperature ranges
HT	High temperature ranges

(these symbols may only be used in combination with symbols for greases)

X	Maximum grease charge
P	Minimum grease charge

### Housing

G	Housing with taphole for relubricating device
V	Housing with grease valve



## TIMKEN

## Timken Bearing Symbols

Prefix	Suffix	Cone or Cup	Explanation
A		Cone & Cup	Standard basic series part number
	A	Cone	Different bore from basic part number
	A	Cone	Different radius from basic part number
	A	Cup	Different OD from basic part number
	A	Cup	Different radius from basic part number
	A	Cup	Different width from basic part number
	AA	Cone & Cup	Different bore, OD, width, or radius from basic part number
	AB	Cone	Different bore, width, or radius from basic part number, assembled with brass cage
	AB	Cup	Flanged cup (Non-interchangeable with basic part number)
	AC	Cone	Different bore or radius, different internal geometry
	AC	Cup	Different OD, width, or radius from basic part number.
	AD	Cup	Double cup. (Non-interchangeable with basic part number)
	ADW	Cone	Double cone. Pilots and slots each end, holes in large rib
	AH	Cone	Assembled with special cage, rollers, and/or internal geometry
	AL	Cone	Assembled with Duo Face seal
	ARB	Cup	Single cup with snap ring groove in OD
	AS	Cone & Cup	Different bore, OD, width, or radius from basic part number
	ASB	Cone	Single cone, different bore or width from basic part number, assembled with brass cage
	AV	Cone & Cup	Made of special steel
	AW	Cone & Cup	Keyway or slotted cone or cup
	AX	Cone & Cup	Different bore, OD, width, or radius from basic part number





## TIMKEN

## Timken Bearing Symbols

AXB	Cone	Different bore, width, or radius from basic part number, assembled with brass cage
AXD	Cup	ISO cup - double cup without oil holes or groove
AXV	Cone & Cup	Different OD, width, or radius from basic part number. Made of special steel
AXX	Cone & Cup	Different OD, width, or radius from basic part number. Made of special steel
B	Cup	Flanged cup. (Non-interchangeable with basic part number)
B	Cone	Cone using brass cage
B	Cone & Cup	ISO bearing with same boudary dimensions as basic part number, but with different internal geometry, steeper included cup angle
BA	Cup	Flanged cup. (Non-interchangeable with basic part number)
BNA	Cone	ISO cone used in assemblies with 2 cones mated with double cup to form a double row non-adjustable bearing (Non-interchangeable with other cones having the same basic psrt numbers which may vary in bore or width dimensions)
BR	Cup	Single cup with groove in OD for snap ring
BS	Cup	Flanged cup. (Non-interchangeable with basic part number)
BW	Cup	Flanged cup with slot. (Non-interchangeable with basic part number)
BXX	Cup	Flanged single cup. Made of special steel
C	Cone	Single cone, envelope dimensions same as basic part number, different internal geometry
C	Cup	Dimensionally different from basic part number. (Non-interchangeable)
CA	Cone	Single cone, envelope dimensions same as basic part number, different internal geometry
CB	Cone	Single cone, dimensionally different from basic part number
CD	Cup	Double cup with oil holes and groove. One hole counter-bored for locking pin
CE	Cup	Dimensionally different from basic part number (Non-interchangeable)

**TIMKEN****Timken Bearing Symbols**

CN	Cup	Neoprene cushioned cup
CP	Cone & Cup	Flash chrome plated. Otherwise, interchangeable with basic part number
EXX	Cone & Cup	Cones or cups having special characteristics differing from and non-interchangeable with other cones or cups identified with the same basic part numbers. Made of special steel
F	Cone	Assembled with polymer cage
FL	Cone & Cup	“Free lateral” series, no large or small ribs
FX	Cone & Cup	Factory identification number only
G	Cone	Retainer groove in bore
H	Cone & Cup	Heavy series. (Non-interchangeable with other cones and cups identified with same basic part numbers)
H	Cone	Assembled with special cage, rollers, and/or internal geometry
HV	Cone	Assembled with special cage, rollers, and/or internal geometry. Made of special steel
HH	Cone & Cup	Heavy-heavy series. (Non-interchangeable with other cones and cups identified with same basic part numbers)
HM	Cone & Cup	Heavy-Medium series. (Non-interchangeable with other cones and cups identified with same basic part numbers)
HR	Cup	Special cup used on “Hydra-Rib” bearing
J	Cone & Cup	Used alone or with other prefix letters to indicate metric and/or OD
JC	Cone & Cup	Metric Series
JD	Cone & Cup	Metric Series
JE	Cone & Cup	Metric Series
JF	Cone & Cup	Metric Series
JG	Cone & Cup	Metric Series
JN	Cone & Cup	Metric Series
JP	Cone & Cup	Metric Series



## TIMKEN

## Timken Bearing Symbols

JR		Cone & Cup	Metric Series
JRM		Cone & Cup	Metric Series, UNIPAC bearing
JS		Cone & Cup	Metric Series
JT		Cone & Cup	Metric Series
JU		Cone & Cup	Metric Series
JW		Cone & Cup	Metric Series
K		Cup	Double cup with heavy section. May have unusual feature such as flange, tapered OD, etc
	KP	Thrust Bearing	Cadmium plated
L		Cone & Cup	Light series. (Non-interchangeable with other cones and cups identified with same basic part numbers)
	L	Cone	Cone assembled with Duo-Face seal
	L	Cup	Loose rib (Part of Unit-Bearing)
	LA	Cone	Cone assembled with Duo-Face seal and with "O" ring groove in bore
	LA, LB, Etc...	Seal	These suffixes are used on a basic Duo-Face Plus seal number to identify the assembly resulting from the use of the seal various cones in the series
LL		Cone & Cup	Light-Light series
LM		Cone & Cup	Light-Medium series
M		Cone & Cup	Medium series
N		Cone	Bock or Gilliam type bearings
NA	NA	Cone	Two cones mated with double cup to form double row non-adjustable bearing. (Non-interchangeable with other cones having same basic part numbers which may vary in bore, OD, and width dimensions)
	NA	Cup	Etched electric pencil or double cups mated with two "NA" type single cones to form double row non-adjustable bearings.
	NAV	Cone	"NA" cone made of special steel

**TIMKEN****Timken Bearing Symbols**

TDV	Cone	Double with tapered bore. Made of special steel
TDW	Cone	Double with tapered bore and slots or keys
TDXX	Cone	Double with tapered bore. Made of special steel
TE	Cone	Single, tapered bore, extended large rib
TEV	Cone	Single, tapered bore, extended large rib. Made of special steel
TL	Cone	Tapered bore with interlock feature
TLE	Cone	Tapered bore with interlock feature and extended rib
TP	Cone	Tapered bore cone with puller groove
TPE	Cone	Tapered bore cone with puller groove, extended large rib
TV	Cone	Tapered bore cone with puller groove. Made of special steel
TW	Cone & Cup	Tapered bore cone or cup OD with slots or keys
TWE	Cone & Cup	Tapered bore cone or cup OD with locking keyway in front face, extended large rib
TXX	Cone	Tapered bore. Made of special steel
U	Cone & Cup	Basic series part number, utilized, self-contained
U	Cone & Cup	Basic series part number, utilized, self-contained
US	Cone & Cup	Special close stand
V	Cone & Cup	Special close stand
V	Cone & Cup	Made of special steel
VC	Cone	Special internal geometry. Made of special steel
VH	Cone	Special cage, rollers, and/or internal geometry. Made of special steel
W	Cone & Cup	Slot(s) or keyway(s)
W	Thrust Race	Oil holes in retainer
WA	Cone	Slot(s) or keyway(s)



## TIMKEN

## Timken Bearing Symbols

WB	Cone	Slot(s) or keyway(s) with brass cage
WC	Cone	Slot(s) or keyway(s)
WD	Cone	Double cone with slot(s) or keyway(s)
WE	Cone & Cup	Extended face with slot(s) or keyway(s)
WS	Cone & Cup	Slot(s) or keyway(s)
WV	Cone & Cup	Slot(s) or keyway(s). Made of special steel
WXX	Cone & Cup	Slot(s) or keyway(s). Made of special steel
X	Cone	ISO part number
X	Cone	Slot(s) or keyway(s)
X	Cone & Cup	Special feature bearing. (Non-interchangeable with bearings having the same basic part number)
X	Cone & Cup	ISO bearing with same boundary dimensions as basic part number but with different internal geometry, yielding increased rating
XA	Cone & Cup	Special feature bearing. (Non-interchangeable with bearings having the same basic part number)
XAA	Cone	ISO single cone. (Non-interchangeable with bearings having the same basic part number)
XAB	Cone	ISO single cone. (Non-interchangeable with bearings having the same basic part number)
XB	Cone	Different bore, width, or radius, from basic part number. Assembled with brass cage
XB	Cup	Special feature flanged cup. (Non-interchangeable with bearings having the same basic part number)
XC	Cone & Cup	Limited production bearings to which standard series part numbers have not been assigned
XD	Cup	Double cup, no oil holes or groove
XD	Cone	Double cone, different bore or width from basic part numbers



## TORRINGTON

### Radial Bearings

Prefixes	Suffixes	Definition
A		Stainless steel
B		Torque tube type
F		Flanged outer ring
H		Snug fit
J		Extra loose internal fit
JJ		Extra extra loose internal fit
L		Internal self-aligning
M		Precision ABEC 3
2M		Angular-contact, ABEC 3, 15°
3M		Angular-contact, ABEC 3, 25°
MM		Superprecision, ABEC 7 tolerances
MV		ABEC 7 modified
2MM		Angular-contact, ABEC 7, 15°
3MM		Angular-contact, ABEC 7, 25°
P		Loose fit
S		Extra-small inch-dimension type (Aerolite)
T		Tight fit
V		Precision ABEC 5
W		Wide-type single row (same width inner and outer)
WIR		Single row-wide inner only
Suffixes C1, C2, C3, etc (manufacturing code-Fafnir use only)		
	FT	Full ball complement
	K	Conrad, non-filling slot type
	W	Maximum capacity, filling slot type
	WI	Angular contact, low-shoulder, outer
	WO	Angular contact, low-shoulder, inner



## TORRINGTON

### Radial Bearings

WN	Angular contact, low-shoulder, inner and outer
<b>Additional Features</b>	
B	Spherical outside diameter
BR	Cast bronze retainer
CR	Composition retainer
D	One shield
DD	Two shields
G	Wireloc (snap ring)
L	One mechanical-Seal
LL	Two Mechani-Seals
MBR	Machined bronze retainer
P	One seal
PP	Two seals
PP2, 3, 4,etc...	Tri-Ply Seals if prefix letter is W (example W208PPB5)
R	One land riding rubber seal
RR	Two land riding rubber seals
S	External self-aligning
SMBR	Iron silicon bronze retainer
T	One felt seal

### Radial Needle Roller and Cage Assemblies

Prefix	Suffix	Definition
K		Metric nominal
WJ, WJC		Inch nominal



## TORRINGTON

### Wide Inner Ring Ball Bearings

Prefixes	Suffixes	Definition
C		Concentric collar
E		Metric bore
G		Relubricatable
1		Standard series (200 series bearings)
L		Light series
N		Heavy series (300 series bearings)
RA		Extended inner ring, one side only
SM		Standard series (open type bearings)
SMN		Heavy series (open type bearings)
GY, ER, YA		Setscrew locking device series
M		Medium duty setscrew lock series
	K	Conrad, non-filling slot type
	W	Maximum capacity filling slot type
	L	One Mechani-seal
	LL	Two Mechani-seals
	PP	Two seals
	R	One land riding rubber seal
	RR	Two land riding rubber seals
	B	Spherical outside diameter
	S	External self-aligning
	PP2, 3, 4	
	etc...	Tri-Ply seals (if preceded by K)
	TDC	Thin dense chrome plate
	F	food grade grease





## TORRINGTON

### Superprecision Ball Bearings

Prefix	Suffix	Definition
<b>Contact Angle</b>		
2		15°
3		25°
<b>Level of Precision</b>		
MM		Superprecision ABEC-7 (ISO P4)
MMV		Super high precision (HG) between ABEC-7 (ISO P4) and ABEC-9 (ISO P2)
MMX		Ultraprecision ABEC-9 (ISO P2)
C		Hybrid Ceramic
<b>Construction</b>		
	K	Conrad
	WI	Angular contact; low shoulder on outer ring
	WO	Angular contact; low shoulder on inner ring
	WN	Angular contact; low shoulder on both rings
	HX	Angular contact; low shoulder on both rings
<b>Retainer: No retainer callout implies Fafnir PRC</b>		
	PRB	Molded nylon cage
	PRC	Molded reinforced nylon cage
	CR	Phenolic (composition) - Fafnir standard
<b>Preload: Universal Flush Ground</b>		
	*SUX	Single bearing, extra light
	*SUL	Single bearing, light



## TORRINGTON

### Superprecision Ball Bearings

*SUM	Single bearing, medium
*SUH	Single bearing, heavy
DUX	Duplex pairs of bearings, extra light
DUL	Duplex pairs of bearings, light
DUM	Duplex pairs of bearings, medium
DUH	Duplex pairs of bearings, heavy
TUX	Triplex set of bearings, extra light
TUL	Triplex set of bearings, light
TUM	Triplex set of bearings, medium
TUH	Triplex set of bearings, heavy
QUX	Quadruplex set of bearings, extra light
QUL	Quadruplex set of bearings, light
QUM	Quadruplex set of bearings, medium
QUH	Quadruplex set of bearings, heavy

\* if “u” is first letter here, assume single

### Timken Torrington - Spherical Roller Bearings

Suffixes	Definition
K	Tapered bore
CJ	2 piece steel cage - window type
VJ	2 piece steel cage - finger type
YM	1 piece bronze cage - finger type
YMB	1 piece bronze, finger type, land piloted
YMD	2 piece bronze, finger type, land piloted



## TORRINGTON

### Timken Torrington - Spherical Roller Bearings

W33 3 holes and groove in OD

W800 shaker screen modification tighter bore diameter and OD tolerances bronze cage RIC in upper 2/3 of clearance specified

W47 Inner ring with oversize bore

#### Internal Clearance

C2 Less than C0

C0 Normal

C3 Greater than C0

C4 Greater than C3

C5 Greater than C4

C6 Special clearance

### Common Spherical Roller Modification Codes

Modification Codes	Definition
C02	Indicates inner ring with extra close running accuracy (1/4 RBEC 1) and marked to show high and low point of eccentricity
C04	Indicates outer ring with extra close running accuracy (1/4 RBEC 1) and marked to show high and low point of eccentricity
C08	Combination C02 inner ring and C04 outer ring
W8	Rings and rollers with Timken Torrington TDC coating
W20	Outer ring with standard lubrication holes
W22	Outer ring with reduced outside diameter tolerance
W25	Outer ring with counter drilled lubrication hole
W31	Bearing inspected to meet special quality requirements



## TORRINGTON

### Common Spherical Roller Modification Codes

W33	Lubrication holes and machined groove in the center of the OD are considered standard features in spherical roller bearings. This feature eliminates the expense of machining a channel in the housing to introduce lubricant to the bearing
W40	Case hardened rings and rollers
W40I	Case hardened inner ring
W45A	Tapped holes in the face of outer ring to facilitate lifting
W50	Tapped holes in the face of inner ring
W84	Outer ring W33 oil holes plugged
W88	Inner ring with reduced bore diameter tolerance
W94	Lubrication holes in inner ring and lubrication grooves in face of retainer
W94A	Lubrication holes inner ring
W502	Combines W22, W33, W45A
W507	Combines W31, W33, W45A
W509	Combines W31, W33, W45A, W94A
W525	Combines W31, W33, W45A and W84
W534	Combines C08, W507
W800	Combines W22, W88 and upper two-thirds of specified radial internal clearance

### Drawn Cup Needle Roller Bearings - Inch Nominal Dimensions

Prefixes	Suffixes	Definition
B		Full complement of mechanically retained needle rollers
G		Extraprecision
H		Heavy Series
J		Caged complement of needle rollers
M		Closed end (1 with the 'M' prefix signifies closed end inch nominal dimensions)



## TORRINGTON

### Drawn Cup Needle Roller Bearings - Inch Nominal Dimensions

T	One seal
TT	Two seals
F	Plastic cage
GF	Grease fitting, closed end
OH	Oil hole
OHE	Oil hole in closed end

### Inner Rings (with 4-digit number)

Prefixes	Suffixes	Definition
IR		Regular width (for use with drawn cup bearings only)
IRA		Extended width (for use with drawn cup bearings only)
	L	.005" width tolerance
	OH	Oil hole and lube groove

### Drawn Cup Roller Clutches

Prefix	Suffix	Definition
Inch Series		
RC		Regular clutch, single roller per integral
RC-FS		Regular clutch, single roller per stainless steel spring
RCB		Regular clutch and bearing assembly, single roller per integral spring
RCB-FS		Regular clutch and bearing assembly, single roller per stainless steel spring
Metric Series		
FCS, FC	K	Regular clutch, single roller per stainless steel spring
FC		Regular clutch, multi-roller per stainless steel spring



## TORRINGTON

### Drawn Cup Roller Clutches

<b>FCL</b>	K	Light series clutch, single roller per stain-less steel spring
<b>FCB</b>		Regular clutch and bearing assembly, multi-roller per stainless steel spring
<b>FCBL,</b>	K	Light series clutch and bearing assembly,
<b>FCBN</b>	K	single roller per stainless steel spring

### Needle Roller Bearings - Inch Nominal Dimensions

Prefixes	Suffixes	Definition
HJ		Inch nominal dimensions
M		Matched Pair
	RS	One seal
	2RS	Two seals

### Inner Rings (6-digit number)

Prefixes	Suffixes	Definition
IR		(for use with machined ring needle roller bearings only)

### Drawn Cup Needle Roller Bearings - Metric Nominal Dimensions

Prefix	Suffix	Definition
HK		Drawn cup bearing, caged open ends
BK		Drawn cup bearing, caged, closed end
	RS	Lip contact seal on one side of the bearing
	2RS	Lip contact seal on each side of the bearing
	AS1	Lubricating hole



## TORRINGTON

### Inner Rings - Metric Nominal Dimensions

Prefix	Suffix	Definition
JR		Inner ring
JRZ		Inner ring without mounting chambers
	JS1	Lubricating hole

### Stud Type Track Rollers - Metric Nominal Dimensions

Prefix	Suffix	Definition
E		Eccentric stud
KR		Track roller, stud type with cage; crowned outside diameter
<b>KRV</b>		Track roller, stud type, full complement needle rollers; crowned outside diameter
<b>NUKR</b>		Track roller, stud type, full complement of cylindrical rollers (2 rows) crowned outside diameter
	SK	Hexagonal wrench socket in stud head
	DZ 2RS	Cylindrical outside diameter: lip contact seals on each end of bearing
	2RS	Lip contact seal on each side of the bearing
	DZ	Cylindrical outside diameter

### Track Rollers/Cam Followers

Prefix	Suffix	Definition
CR		Stud type
YCR		Yoke type
<b>S</b>		Seals with internal thrust washers (CR type only)
<b>B</b>		Hex wrench socket
<b>C</b>		Crowned OD
<b>E</b>		Eccentric stud (CR type only)



## TORRINGTON

### Yoke Type Track Rollers - Metric Nominal Dimensions

Prefix	Suffix	Definition
NA22		Track roller, yoke type, crowned outside diameter with inner ring, sealed
RNA22		Track roller, yoke type, crowned outside diameter with inner ring, sealed
<b>RSTO</b>		Track roller, yoke type, crowned outside diameter without inner ring, without washers
<b>STO</b>		Track roller, yoke type, crowned outside diameter with inner ring, without washers
<b>NATR</b>		Track roller, yoke type, crowned outside diameter with inner ring, with washers
<b>NUTR</b>		Track roller, yoke type, crowned outside diameter with inner ring, with washers; 2 paths of full complement cylindrical rollers
	TN	Molded cage of reinforced, engineered polymer
	DZ	Cylindrical outside diameter
	ZZ	two washers for track rollers used for axial location
	2RS	Lip contact seal on each side of the bearing
	ZZ.DZ	Two washers for track rollers used for axial location; cylindrical outside diameter
	DZ.TN	Cylindrical outside diameter; molded cage of reinforced, engineered polymer
	2RS.DZ	Lip contact seal on each side of bearing; cylindrical outside diameter

### Thrust Washers - Metric Nominal Dimensions

Prefix	Suffix	Definition
AS		Thin thrust washer
LS		Heavy thrust washer
<b>GS.811, GS.812</b>		Housing washer
<b>WS.812</b>		Shaft washer





## TORRINGTON

### Needle Roller Thrust Bearings - Metric Nominal Dimensions

Prefix	Suffix	Definition
AXK		Needle roller and cage thrust assembly (one piece cage design)
FNT		Needle roller and cage thrust assembly (two piece cage design)
<b>K.811</b>		Cylindrical roller thrust bearing
<b>K.812</b>		Cylindrical roller thrust bearing
	TVP	Molded, reinforced polymer window-type cage
	LPB	Machined, light metal window-type cage

### Ballcrew Support Bearings - Inch

Prefix	Suffix	Definition
MM		ABEC 7 with tighter lateral eccentricity
91		Ballcrew support series designation for inch number

#### Series

	H	High capacity
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#### Number of bearings in set

	DU	Duplex (2)
	TU	Triplex (3)
	QU	Quadruplex (4)

#### Preload level

	L	Light
	M	Medium
	H	Heavy



## TORRINGTON

### Ballscrew Support Bearings - Metric

Prefix	Suffix	Definition
MM		Class-7 with tighter lateral eccentricity
	<b>BS</b>	Ballscrew support series designation for metric number
<b>Number of bearings in set</b>		
	DU	Duplex (2)
	TU	Triplex (3)
	QU	Quadruplex (4)
<b>Preload level</b>		
	L	Light
	M	Medium
	H	Heavy

### Control Bearings

Prefix	Suffix	Definition
A		Stainless Steel
C		Cadmium Plate
<b>M</b>		Precision series
<b>K</b>		Single row
<b>D</b>		Double row
<b>FL</b>		Fairlead type
<b>B</b>		Torque tube type
<b>S</b>		internal self aligning type
<b>W</b>		Wide inner ring



## TORRINGTON

### Control Bearings

<b>P</b>		Contact seal
	A,B	Series Designator
	S	External self aligning S ring
	FS 464	MIL-B 7949 with; MIL-G-81322 grease
	FS 428	MIL-B 7949 with;MIL-G-23827 grease

### Rod End Bearings

Prefix	Suffix	Definition
RE		Ball bearing rod end MIL-B-6039
RA		Ball bearing rod end "NAS" series
RR		Roller bearing rod end "NAS" series
<b>P</b>		Contact seal
	F	Female thread
	M	Male thread
	L	Left hand thread
	H	Hollow shank type
	S	Solid shank type
	FS 464	MIL-B-6039 with MIL-G-81322 grease
	FS 428	MIL-B-6039 with Mil-G-23827 grease



## TORRINGTON

### Airframe Needle Roller Bearings

Prefix	Suffix	Definition
	<b>NBF</b>	Single row, track roller
	<b>NBL</b>	Double row, track roller
	NBC	Single row bearing
	NBE	Single row, self-aligning bearing
	NBK	Double row, self-aligning bearing
	YZP	Design Modifications
<b>ATF</b>		Single row, track roller sealed
<b>ATL</b>		Double row, track roller, sealed
<b>HRS</b>		Single row, stud type, track roller, sealed
HRSC		Single row, stud type, track roller, sealed with crowned outer
	CFR	Design modifications (stud type only)

### Cast Iron Housed Units

Prefix	Suffix	Definition
L		Labyrinth seal with self-locking collar
R		Contact shroud seal with self-locking collar
S		Contact shroud seal, narrow inner ring, setscrew lock
T		Tri-ply shroud seal with self-locking collar
V		Contact shroud seal, narrow inner ring, self-locking collar
Y		Contact shroud seal, with wide inner ring, setscrew lock
<b>AK</b>		Low base
<b>AO</b>		Heavy series



## TORRINGTON

### Cast Iron Housed Units

<b>AS</b>	High base
<b>C</b>	Cylindrical cartridge
<b>SA</b>	High base
<b>Options</b>	
<b>C</b>	Concentric collar
<b>CJ</b>	Four bolt mount
<b>CJT</b>	Two bolt mount
<b>H</b>	Heavy housing
<b>L</b>	Expansion unit
<b>TU</b>	Take-up unit
<b>M</b>	Medium duty
	<b>PT</b> Polymer housing with TDC bearing
	<b>NT</b> Nickel plated with TDC bearing
	<b>ZT</b> Zinc plated with TDC bearing

### Spherical Plain Bearings

Prefix	Suffix	Definition
<b>SF</b>		Spherical plain type; Single fractured outer ring
<b>SBB</b>		Spherical plain type; Double fractured outer ring
<b>SBT</b>		Spherical plain angular contact type
	<b>TT</b>	Reinforced rubber seals
	<b>SS</b>	Synthetic resin seals



## TORRINGTON

### Machined Race Bearings

Prefix	Suffix	Definition
HJ		Inch nominal dimensions
M		Matched pair
T		One seal (lip facing outward), old design
R		One seal (lip facing inward), old design
	RS	One seal*
	2RS	Two seals*

\*Seals used on new designs. Replace T and R seals

### Machined Inner Rings (6-digit number)

Prefix	Suffix	Definition
IR		For use with machined ring bearings only: Inch nominal dimensions

### Torrington Pillow Blocks

Prefix	Suffix	Definition
SAF		Two or four bolt pillow block, cast iron
SDAF		Four bolt heavy duty type pillow block, cast iron
<b>SAFS</b>		Two or four bolt pillow block, cast steel
<b>FSAF</b>		Four bolt pillow block, cast iron (only when an option)
<b>FSAFS</b>		Four bolt pillow block, cast steel (only when an option)
<b>SDAFS</b>		Four bolt heavy duty pillow block, cast steel
	K	Indicated on adapter type mounting arrangement (for 230,231, 232 series, SDAF231K and SDAF232K series)
	DV	DUSTAC seals - both sides



## TORRINGTON

### Torrington Pillow Blocks

DC	DUSTAC seals - one side
<b>Indicate construction</b>	
FXOP	Fixed open
FXCL	Fixed closed
FLOP	Float open
FLCL	Float closed

### Thrust Bearings

Nomenclature		Definition
TVB		Thrust Ball Bearings
TVL		Angular Contact Thrust Ball Bearings
DTVL		Angular Contact Thrust Ball Bearings upper and lower complement of balls
TP		Thrust Cylindrical Roller Bearings
TPS		Thrust Cylindrical Roller Bearings two bottom washers
TTHD		Thrust Tapered Roller Bearings
Prefix	Suffix	Definition
F		Metric designation
NT		Cage assembly
<b>Cage Design</b>		
A		Needle Roller
C		Needle Roller
H		Cylindrical Roller



## TORRINGTON

### Thrust Washers

Prefix	Suffix	Definition
TR		Thrust washer, inch
FTRA		Thrust washer, metric
<b>A,B,C etc</b>		Washer thickness, inch
<b>I &amp; J</b>		Bore piloted washers





## TYSON

## Tapered Roller Bearing

Prefix	Suffix	Definition
A		Tapered roller bearing designed to replace another type of bearing
	<b>A</b>	Dimensional variation from basic cone or cup
	AB	Dimensional variation from basic flanged cup
	AS	Dimensional variation from basic cone
	AX	Dimensional variation from basic cone
	B	Brass cage
	B	Flanged cup
	BR	Cup or cone with snap ring
	BW	Slotted flanged cup
	C	Crowned rollers
	C	Crowned cup
	CP	Chrome plated cup or cone
	CR	Ribbed cup
	D	Double cone or cup
	DA	Dimensional variation of basic double cone
	DA	Double cup with spherical OD
	DB	Flanged double cup
	DD	Long double cone or double cup
	DE	Dimensional variation of basic double cone
	DS	Dimensional variation of basic double cup
	DT	Double cup, tapered OD
	DW	Double cone or cup with keyway

**TYSON****Tapered Roller Bearing**

EA	Cup spacer
ED	Short double cup
EE	Cone-double rib type construction, large bore cone
EH	Extra heavy cone or cup
FR	Full roll type cone
H	"Heavy" series cup or cone
HH	"Heavy-heavy" series cup or cone
HM	"Heavy-Medium" series cup or cone
KP	Cadmium plated cup or cone
L	Light series cup or cone
LL	"Light, light" or extra light series cup or cone
LM	"Light medium" series cup or cone
LW1	Cone with 1 special keyway
M	Medium series cup or cone
N	Tyson series only
NA	Factory adjusted -not adjustable- cone used with D cup
NW	Slotted front face on cone
NW2	Cone with 2 special Woodruff keys
NW4	Cone with 1 keyway extended through cone bore
RB	Cup with snap ring
S	Dimensional variation from basic cone
SW	Dimensional variation from basic cone with keyway
SW	Na cone- slotted front face

**TYSON****Tapered Roller Bearing**

SWE	Na cone- slotted front face with extended backface ground for seal surface
T	Tapered bore on cone
T	Cup with tapered OD
TD	Double cone with tapered bore
W	Two angle slots diametrically opposite in cone backface
WA	Slotted cone - single angular slot in backface
WB	Slotted cone - two straight slots diametrically opposite in backface
WC	Slotted cone - full length slot through bore
WD	Special slotted cone
X	Cone with keyway
X	Variation from basic cup
XA	Cone spacer
XD	Double cup
XL	"TySeal" sealed bearing - cup or cone



## Naming Guide

Suffix	Definition
A	Change in internal design, higher loading capacity
RS	Seal on one side
RSR	Seal on one side adjacent to the smooth rib of the inner ring
2RS	Seal on both sides
2RSR	Seal on both sides adjacent to the smooth rib of the inner ring
Z	Shield on one side
ZN	Shield on one side and snap ring groove on the outer ring on the opposite side
ZR	Shield on one side adjacent to the smooth rib of the inner ring
2Z	Shield on both sides
2ZR	Shield on both sides adjacent to the smooth rib of the inner ring
K	Taper bore of conicity 1:12
N	Snap ring groove on the outer ring
F	Solid cage of steel guided on balls
M	Solid cage of brass guided on balls
MA	Solid cage of brass guided on the outer ring
TB	Solid cage of textit guided on the inner ring
TNB	Solid cage of polyamide guided on the inner ring
TNGH	Solid cage of polyamide with filler guided on balls, one side
TNH	Solid cage of polyamide guided on balls, one side
Y	Cage pressed of brass sheet (usually not indicated)
P6	Higher degree of tolerance than normal
P6E	Higher degree of tolerance for electric machines, revolving

## Naming Guide

P5	Higher degree of tolerance than P6
P4	Higher degree of tolerance than P5
C2	Radial clearance smaller than normal
C3	Radial clearance larger than normal
C4	Radial clearance larger than C3
C5	Radial clearance larger than C4
R...	Radial clearance in a non-normalized range
A...	Axial clearance in a non-normalized range
C6	Reduced noise level
Stabilization of dimensions for operating temperature up to	
S0	150°C
S1	200°C
S2	250°C
S3	300°C
S4	350°C
S5	400°C
TPF204	Bearings for the mounting of wheels of furnace cars joining designations of tolerance radial clearance and reduced levels of vibrations
C36	C3 + C6
P62	P6 + C2
P63	P6 + C3
P64	P6 + C4
P636	P6 + C3 + C6