

MIL-HDBK-203C
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MILITARY STANDARDIZATION HANDBOOK

**MANUFACTURERS' SYMBOLS
AND DESIGNATIONS
FOR
ANTI-FRICTION BEARINGS**



FSC 3110

MIL-HDBK-203C
5 January 1977

DEPARTMENT OF DEFENSE
WASHINGTON, D.C. 20301

Manufacturers' Symbols and Designations for
Anti-friction Bearings
MIL-HDBK-203C

1. This Military Handbook is approved for use by all Departments and Agencies of the Department of Defense.
2. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Naval Ship Engineering Center, Department of the Navy, SEC 6124, Washington, DC 20362, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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FOREWORD

1. This handbook is intended as a guide for the interpretation of anti-friction bearing manufacturers symbols and designations. It is intended for personnel concerned with the preparation of specifications, procurement of bearings and identification of bearings.
2. This handbook is not intended to be referenced in whole or in part in purchase documents, nor does it supersede in design or specification requirements.
3. This handbook contains information that is not controlled by the Department of Defense and, by itself, shall not be used to determine bearing applications, interchangeability, substitution, or consolidation of stock.
4. The information contained in this handbook is arranged in alphabetical sequence by manufacturer's name. Five digit codes shown in the heading of each page refer to applicable Federal Supply Codes for manufacturers. In most cases, symbols and designations are listed alphabetically for each manufacturer. However, for some manufacturers, symbols and designations vary by product line, so the information is listed under applicable product lines.
5. The following information is pertinent to proper use of this handbook.
 - (a) Knowledge of the fundamentals of identifying bearings is of the utmost importance before this guide can be properly used.
 - (b) Since the area concerned with nomenclature and designation of characteristics by use of prefixes and suffixes is highly complex and highly technical, a thorough understanding of bearings employing their use is required. Part number structures vary with each manufacturer. Symbols and designations do not apply to all products. Moreover, some designations, for example, could have two or three different meanings for different product divisions within the same manufacturer. Therefore, you should be familiar with the specific data you are seeking to locate or identify.
 - (c) Many symbols used for the identification of special bearing characteristics do not actually appear on the bearing itself, but rather as part of the carton marking. For this reason, it is imperative that the carton markings of anti-friction bearings be carefully observed.

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MFR: AETNA BEARING COMPANY

CODE 00658

Prefix	Suffix	Definition
A		Special.
AG		Special agricultural bearing.
B		One direction ball thrust bearing, flat seat, flat raceway, bronze retainer, inch standard, light series.
B		Bronze cage when the cage retains the rollers in the inner ring if the outer ring is removed.
	B	Bronze cage when the cage retains the rollers in the outer ring if the inner ring is removed.
C		One direction ball thrust bearing with flat seat, flat raceway, pressed steel retainer, inch standard, light series.
E		One direction banded ball thrust bearing with flat seat, grooved raceway and full complement of balls, inch standard, medium series.
F		One direction ball thrust bearing with flat seat, grooved raceway, pressed steel retainer, inch standard, light series.
G		One direction ball thrust bearing with flat seat, grooved raceway, pressed steel retainer, inch standard medium series.
K		Two lip inner ring.
	K	Two lip outer ring.
L		Cylindrical inner ring (no lips).
	L	Cylindrical outer ring (no lips).
M		One lip inner ring.
	M	One lip outer ring.
N		One lip inner ring with one roller retainment ring.
	N	One lip outer ring with one roller retainment ring.
P		Cylindrical inner ring with two roller retainment rings.
	P	Cylindrical outer ring with two roller retainment rings.
R		One piece, channel type, ball retainer.
R		Steel cage when the cage retains the rollers in the inner ring if the outer ring is removed.
	R	Steel cage when the cage retains the rollers in the outer ring if the inner ring is removed.
T		Non-standard inner ring width.
	T	Non-standard outer ring width.
U		Non-standard fillet radii on inner ring.
	U	Non-standard fillet radii on outer ring.
W		Plain thrust washer.
X		Bore smaller than standard.
	X	Outside diameter smaller than standard.
	Y	This letter used as a spare for the possibility of having two sizes under standard size in one number or vice versa.
Z		Bore larger than standard.
	Z	Outside diameter larger than standard.

How to read AETNA ball and roller bearing numbers:

- Numbers indicate bearing size.
- Prefix letters indicate inner race type.
- Suffix letters indicate outer race type.

EXAMPLE:

K1205PR

K 1205 P R

Two lip inner ring.

Basic Bearing size.

Cylindrical outer ring with two roller retainment rings.

Steel cage when the cage retains the rollers in the outer ring if the inner ring is removed.

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MFR: AETNA BEARING COMPANY (con.)

CODE 00658

Prefix	Suffix	Definition
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EXAMPLE:

KX1205PR

K X 1205 P R

Two lip inner ring.

Inside diameter smaller than standard.

Basic bearing size.

Cylindrical outer ring with two roller retainment rings.

Steel cage when the cage retains the rollers in the outer ring if the inner ring is removed.

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MFR: ANDREWS CORPORATION

CODE 03489

Prefix	Suffix	Definition
B	A	Variations. Inch dimension, flat seat, single direction ball thrust bearing, outside banded, grooved races, no retainer, full complement balls, heavy.
	B	Bands.
	CP	Center plate.
	CO5	Degree of precision.
D	CO8	Degree of precision. Inch dimension, flat seat, single direction, ball thrust bearing, outside banded, grooved races, no retainer, full complement balls, medium.
	D	Dicronite film.
DL		Metric dimensions, flat seat, single direction, ball thrust bearing, three piece with ball retainer, grooved races, light.
DM		Metric dimensions, flat seat, single direction ball thrust bearing, three piece with ball retainer, grooved races, medium.
EW	E	Electrofilm.
		Inch dimension, flat seat, single direction ball thrust bearing, three piece with machined brass or bronze retainer, flat races, light.
FT		Inch dimension, flat seat, single direction ball thrust bearing, three piece with machined brass or bronze retainer, flat races, medium.
FT-O		Inch dimension, flat seat, single direction ball thrust bearing, three piece with machined brass or bronze retainer, flat races, extra light (small sizes).
GT	G	Special grease.
		Inch dimension, flat seat, single direction ball thrust bearing, three piece with pressed steel retainer, grooved races, light.
HW	H	Green rings and/or retainer blanks.
		Inch dimension, flat seat, single direction ball thrust bearing, three piece with ball retainer, grooved races, heavy.
MW	J	Press steel retainer.
	K	Retainer only.
	L	Phenolic retainer.
	LB	Large bore.
	M	Machine brass or bronze retainers.
		Inch dimension, flat seat, single direction ball thrust bearing, three piece with ball retainer, grooved races, medium.
	M2	Type of steel.
	M50	Type of steel.
	N	Nylon retainer.
	P	Less one race.
	Q	Special material.
	R	Machined steel retainer.
	S	Seats (self-aligning).
	SB	Small bore.
	SP	Special tolerance.
	SS	Stainless steel.
TB	T	Machined stainless steel retainer.
	U	Treadle roll ball bearing.
	V	Plating.
W	V	Stainless steel balls.
		Inch dimension, flat seat, single direction ball thrust bearing, three piece with ball retainer, grooved races, light.
WA	W	Washer (self-aligning).
		Inch dimension, hardened and ground steel thrust washers.
XW	X	Race only.
		Inch dimension, flat seat, single direction ball thrust bearing, three piece with ball retainer, grooved races, extra light (large sizes).

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MFR: ANDREWS CORPORATION (con.)

CODE 03489

Prefix	Suffix	Definition
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SPECIAL BEARING NOMENCLATURE

A special bearing is represented by either two or three numbers, a letter or group of letters, and two numbers.

EXAMPLE: 00X00

The first group of numbers can be read in inches with a decimal point before the last number, and represents any bore size within that tenth of an inch.

The letter or group of letters further describe the bearing according to the code listed below. The last two numbers are sequential numbers used to designate a difference between other special bearings with the same numbering and lettering description.

X	-----	Grooved bearing
P	-----	3 piece bearing w/ flat race
Y	-----	Banded
J	-----	Press steel retainer
W	-----	Washer
WX	-----	Grooved washer
N	-----	Nylon retainer
Z	-----	Inside banded (end thrust)
M	-----	Bronze retainer
S	-----	Stainless steel
R	-----	Machined steel retainer
RR	-----	Radial roller
RRT	-----	Radial roller and thrust combination
RT	-----	Roller thrust
BR	-----	Radial ball
RJ	-----	Journal roller bearing
RTW	-----	Roller thrust w/ self aligning washer
C	-----	Sleeves

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R: BALL AND ROLLER BEARING COMPANY

CODE 05527

Prefix	Suffix	Definition
A		Ball thrust bearings, flat race surface, flat seat, with bronze ball retainer.
AA		Ball thrust bearings, grooved race surface, flat seat, with solid machined retainer, special series.
AH		Ball thrust bearing, grooved race surface, flat seat, solid machined retainer, heavy series.
AL		Ball thrust bearing, grooved race surface, flat seat, with solid machined retainer, light series.
AM		Ball thrust bearing, grooved race surface, flat seat, with solid machined retainer, medium series.
B		Ball thrust bearing, banded outside diameter, grooved race surface, flat seat, no retainer.
B		Locating washer for use with ball thrust bearing (for type BB bearings).
BB		Ball thrust bearing, grooved race surface, spherical seat, solid machined retainer, special light series.
BH		Ball thrust bearing, grooved race surface, spherical seat, solid machined retainer, heavy series.
BL		Ball thrust bearing, grooved race surface, spherical seat, solid machined retainer, light series.
BM		Ball thrust bearing, grooved race surface, spherical seat, solid machined retainer, medium series.
C		Ball thrust bearing, grooved race surface, flat seat, with bronze and/or pressed steel ball retainer.
CH		Ball thrust bearing, double direction grooved race surface, flat seat, middle washer locked to shaft, heavy series.
CL		Ball thrust bearing, double direction, grooved race surface, flat seat, middle washer locked to shaft, light series.
CM		Ball thrust bearing, double direction, grooved race surface, flat seat, middle washer locked to shaft, medium series.
D		Ball thrust bearing, banded outside diameter, grooved race surface, flat seat, no retainer.
DH		Ball thrust bearing, double direction, grooved race surface, spherical seat, middle washer locked to shaft, heavy series.
DL		Ball thrust bearing, double direction, grooved race surface, spherical seat, middle washer locked to shaft, light series.
DM		Ball thrust bearing, double direction, grooved race surface, spherical seat, middle washer locked to shaft, medium series.
E		Roller thrust bearing, flat seat, flat race surfaces and with spherical seat.
EL		Ball thrust bearing, double direction, grooved race surface, flat seat, middle washer locked in housing, light series.
FL		Ball thrust bearing, double direction, grooved race surface, spherical seat, middle washer locked in housing, light series.
H		Locating washer for use with ball thrust bearings (for type BH and DH bearings).
L		Locating washer for use with ball thrust bearings (for type BL, DL, and FL bearings).
M		Locating washer for use with ball thrust bearings (for type BM and DM bearings).
W		Ball thrust bearing, grooved race surface, flat seat with bronze and/or pressed steel ball retainer, medium series.
XW		Ball thrust bearing, grooved race surface, flat seat with bronze and/or pressed steel ball retainer, light to medium series.

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Bearing number sequence

- Group number 1 - Material
- Group number 2 - Series and size
- Group number 3 - Type
- Group number 4 - Closures
- Group number 5 - Cage
- Group number 6 - Special features
- Group number 7 - Radial play
- Group number 8 - Bore and outside diameter tolerance. Functional test
- Group number 9 - Duplexing
- Group number 10 - Radial runout
- Group number 11 - Calibration
- Group number 12 - Lubrication

GROUP 1

MATERIAL - MISCELLANEOUS

SYMBOL

DESCRIPTION

None	SAE 52100
(A)	All special spindle and turbine bearings with metric dimensions and bores 10 mm and up
(BC)	Barrier coating
(C)	Configuration management
(F)	Non-standard flanges on metric spindle and turbine sizes
J	Stainless steel - Lescalloy BG-42 (14-4-1)
(K)	ABEC-9 tolerances
M	M-50 tool steel
(P)	TCP coated parts
S	Stainless AISI 440C
T	T-5 tool steel
(V)	ABEC-5, 5P and 5T tolerances
1X	Crucible 52CB steel
(Z)	Special bearings

() Indicate non-material designations.
 Material and non-material () designations may be used jointly. BC, C, K, P, and V precede material: A, F and Z follow.

GROUP 2

BEARING SERIES

<u>SYMBOL</u>	<u>ANSI No.</u>	<u>STANDARD</u>		<u>DESCRIPTION</u>
		<u>Pg.</u>	<u>Dim Series</u>	
FRO	B3.10	3	--	Inch-Instrument - flanged outer ring (O.R.)
FRWO	B3.10	4	--	Inch-Instrument - flanged O.R. - Wide inner ring (I.R.)
RO	B3.10	3	--	Inch-Instrument
RWO	B3.10	4	--	Inch-Instrument - wide I.R.
2MO	B3.14	7	02	Metric-Instrument - 9 mm maximum bore
3MO	B3.14	7	03	Metric-Instrument - 9 mm maximum bore
18MO	B3.14	6	18	Metric-Instrument - 9 mm maximum bore
28MO	B3.14	6	28	Metric-Instrument - 9 mm maximum bore
38MO	B3.14	6	38	Metric-Instrument - 9 mm maximum bore
48MO	B3.14	6	48	Metric-Instrument - 9 mm maximum bore
19MO	B3.14	6	19	Metric-Instrument - 9 mm maximum bore
39MO	B3.14	6	39	Metric-Instrument - 9 mm maximum bore
49MO	B3.14	6	49	Metric-Instrument - 9 mm maximum bore
			10	Metric-Instrument - 9 mm maximum bore
30	B3.10	5	02	Metric-Instrument - 9 mm maximum bore
			03	Metric-Instrument - 9 mm maximum bore
100	B3.14	6	10	Metric-Extra Lt - 10 mm bore plus - 15 contact angle degree (CA)
R100	B3.10	3	--	Inch-Instrument
RW100	B3.10	4	--	Inch-Instrument - wide I.R.
FR100	B3.10	3	--	Inch-Instrument - flanged O.R.
FRW100	B3.10	4	--	Inch-Instrument - flanged O.R. - Wide I.R.
200	B3.14	7	02	Metric - light series - 10 mm bore plus - 15 degree CA

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<u>GROUP 2</u>		<u>BEARING SERIES</u>			
SYMBOL	ANSI No.	STANDARD Pg.	Dim Series		DESCRIPTION
300	B3.14	7	03		Metric - medium series - 10 mm bore plus - 15 degree CA
500	B3.10	6	--		Inch Series - torque tube
N500	B3.10	6	--		Inch Series - torque tube - narrow inner
W500	B3.10	6	--		Inch Series - torque tube - wide outer
R1000	B3.10	6	--		Inch Series - extra thin
1800	B3.14	6	18		Metric XXX Light - 10 mm bore plus - 15 degree CA
1900	B3.14	6	19		Metric XX Light - 10 mm bore plus - 15 degree CA
2100	B3.14	6	10		Metric X Light - 10 mm bore plus - 25 degree CA
2200	B3.14	7	02		Metric Light - 10 mm bore plus - 25 degree CA
2800	B3.14	6	18		Metric XXX Light - 10 mm bore plus - 25 degree CA
2900	B3.14	6	19		Metric XX Light - 10 mm bore plus - 25 degree CA
9100	B3.14	6	30		Metric X Light - cartridge width
9200	B3.14	7	32		Metric Light - cartridge width
A00	---	-	--		Metric, special - 10 mm bore plus

<u>GROUP 3</u>		<u>BEARING TYPE</u>
B		Angular contact - separable inner
G		Split inner - Gothic profile - I.R.
H		Angular contact - Relieved outer - non-separable
J		Angular contact - Relieved inner - non-separable
MX		Double row, special

<u>GROUP 4</u>		<u>CLOSURES</u>
S		Single stainless shield
SS		Two stainless shields
F		Single Al/fiber flexeal
FF		Two Al/fiber flexeals
U		Single class/Teflon synchroseal
UU		Two glass/Teflon synchroseals
FS		One flexeal, one shield
FU		One flexeal - one Synchroseal
SU		One shield - one Synchroseal
RF		Single flexeal on hub side of flanged O.R. or O.R. thrust face of H or J type
RS		Single shield on hub side of flanged O.R. or O.R. thrust face of H or J type
RU		Single synchroseal on hub side of flanged O.R. or O.R. thrust face of H or J type

<u>GROUP 5</u>		<u>CAGES - DEEP GROOVE</u>
T		Two-piece riveted machine Al/Synthane
W		Two-piece stamped light weight loose clinched stainless
Z		Stainless coil spring separators
NA		Two-piece machined - Riveted leaded bronze
PA		"W" type cage - Teflon coated pockets - tightly clinched
QP		One-piece snap, unfilled polyimide
QW		One-piece snap, Feuralon AW
TA		One-piece machined side assembled - Synthane
TB		One-piece machined side assembled - Bartemp (shielded bearing only)
TQ		One-piece machined side assembled - Acetal plastic - ball retained
TQM		One-piece molded side assembled - Acetal plastic - ball retained
ZA		Teflon Tubular slug ball separators
TQT		One-piece - Acetal plastic - inner race retained
TWT		Two-piece riveted Feuralon AW

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SYMBOL DESCRIPTION

GROUP 5 CAGES - ANGULAR CONTACT - B TYPE

None	One-piece machined stepped or conical pockets - Synthane LBB or XX
A	One-piece machined conical pockets - Nysorb
B	One-piece machined conical pockets - Synthane XX
H	One-piece machined conical pockets - Porous Synthane
M	One-piece machined stepped pockets - Synthane LBB
O	One-piece machined conical pockets - Delrin

GROUP 5 CAGES - ANGULAR CONTACT - H TYPE

None	One-piece machined - Synthane LBB - linen base
A	One-piece machined - Nysorb
B	One-piece machined - Synthane XX - paper base
H	One-piece machined - Porous Synthane XX - paper base
J	One-piece machined - Silver
JJ	One-piece machined - Silver
JB	One-piece machined - 80-10-10 bronze

GROUP 5 CAGES - J TYPE

(B)JH	One-piece machined - Bronze 80-10-10
(B)JJ	One-piece stamped - Bronze, phosphor
JJ	One-piece stamped - Bronze, phosphor

NOTE: (B) Previously used to designate type J bearings

GROUP 6 SPECIAL FEATURES

X50	Instrument inch series with small balls
X54	Instrument inch series, double row, with small balls
X200	Oil tight seal between O.R. shield groove and shield
X201	52100 Bearings stabilized for 450°F operation
X205	Full ball complement H and J type bearings

(All other numbers represent special features and are not significant.)

GROUP 7 RADIAL CLEARANCE
 MINIATURE AND INSTRUMENT BEARINGS

(K)2	0.0001 - 0.0003 inch radial play
(K)3	.0002 - .0004 inch radial play
(K)4	.0003 - .0005 inch radial play
(K)5	.0005 - .0008 inch radial play
(K)6	.0008 - .0011 inch radial play
(K)25	.0002 - .0005 inch radial play

SPINDLE AND TURBINE BEARINGS

(K)3	Tight
(K)5	Normal
(K)6	Loose

(Actual radial play varies with ball diameter)

TORQUE TUBE BEARINGS (up to 2.3125 inch bore)

(K)5	0.0005 - 0.0011 inch
(K)6	.0008 - .0014 inch

EXTRA THIN SERIES

(K)5	0.0003 - 0.0008 inch
(K)6	.0005 - .0010 inch

NOTE: (K) is used only when previous group selection ends with a number - as example R2K5, R2SS5

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SYMBOL DESCRIPTION

GROUP 8 FUNCTIONAL TEST

L Low vibration test - Special finish
 V Standard production torque requirement
 VA Low vibration roundness control
 VB Low vibration USN MIL-B-17931C
 VK Low starting torque
 VL Low starting and peak running torque
 VM Low peak running torque
 VT Low peak running torque with traces

GROUP 9 DUPLEXING

D Universal duplex pair
 DB Duplex pair - back-to-back
 DD Triplex set - tandem mount
 DF Duplex pair - face-to-face
 DQ Quad set - tandem mount
 DT Duplex pair - tandem mount
 DBT Single bearing and DT pair mounted DB
 DBD Single bearing and DD set mounted DB
 DBQ Single bearing and DQ set mounted DB
 DBTT Tandem pair and tandem pair mounted DB
 DBTD Tandem pair and DD set mounted DB
 DBTQ Tandem pair and DQ set mounted DB
 DBDD DD set and DD set mounted DB
 DBDQ DD set and DQ set mounted DB
 DBQQ DQ set and DQ set mounted DB
 (XX)L Light preload
 (XX)M Medium preload on 1900, 100, 200, and 300 series bearings only
 (XX)H Heavy preload
 (XX)S Single bearing with faces flush

NOTE: A number following preload designation in place of L, M, H, or S is mean preload in pounds (i.e. DB15). (XX) is preload configuration.

GROUP 10 SPECIAL RADIAL RUNOUT (ALL RUNOUTS ARE IN INCHES)

E I.R. 0.00005, O.R. standard
 E1 I.R. 0.00005, O.R. 0.0001
 E2 I.R. 0.00005, O.R. 0.00005
 E3 I.R. 0.0001, O.R. standard
 E4 I.R. 0.0001, O.R. 0.0001
 E5 I.R. 0.0001, O.R. 0.00005
 E6 I.R. standard, O.R. 0.0001
 E7 I.R. standard, O.R. 0.00005
 E8 I.R. standard, O.R. standard - low non-repetitive runout
 R Mark high point I.R.
 R1 Mark high point O.R.
 R2 Mark high point I.R. and O.R.

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GROUP 11 - BORE AND O.D. CALIBRATION

PACKAGE MARKING - TORQUE TUBE, EXTRA THIN, SPINDLE AND TURBINE BEARINGS

Departure from nominal bore size (avg. dia. - inches)	Departure from nominal o.d. size (average dia. - inches)						
	No o.d. calibration	0.0000 to -0.0001	-0.0001 to -0.0002	-0.0002 to -0.0003	-0.0003 to -0.0004	-0.0004 to -0.0005	-0.0005 to -0.0006
No bore calibration		C01	C02	C03	C04	C05	C06
0.0000 to -0.0001	C10	C11	C12	C13	C14	C15	C16
-0.0001 to -0.0002	C20	C21	C22	C23	C24	C25	C26
-0.0002 to -0.0003	C30	C31	C32	C33	C34	C35	C36
-0.0003 to -0.0004	C40	C41	C42	C43	C44	C45	C46

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GROUP 11 - BORE AND O.D. CALIBRATION

PACKAGE MARKING - CALIBRATED - MINIATURE AND INSTRUMENT BEARINGS

Departure from nominal bore size (minimum diameter inches)	Departure from nominal O.D. size (maximum diameter - inches)						
	No O.D. calibration	0.0000 to 0.0001	-0.0001 to -0.0002	0.00000 to -0.00005	-0.00005 to -0.00010	-0.00010 to -0.00015	-0.00015 to -0.00020
Bearing designation		COX		CO4			
No bore calibration		CO1	CO2	COA	COB	COC	COD
0.0000 to -0.0001	C10	C11	C12	C1A	C1B	C1C	C1D
-0.0001 to -0.0002	C20	C21	C22	C2A	C2B	C2C	C2D
Bearing designation	CX0	C		CX4			
0.00000 to -0.00005	CA0	CA1	CA2	CAA	CAB	CAC	CAD
-0.00005 to -0.00010	CBO	CB1	CB2	CBA	CBB	CBC	CBD
-0.00010 to -0.00015	CCO	CC1	CC2	CCA	CCB	CCC	CCD
-0.00015 to -0.00020	CDO	CD1	CD2	CDA	CDB	CDC	CDD
Bearing designation	C40	C4X		C44			

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SYMBOL	DESCRIPTION
<u>GROUP 12 - LUBRICANTS</u>	
A. <u>OILS</u>	
0-9	Esso Avia. Instr. Oil - (MIL-L-7870)
0-10	Teresso 43
0-11	Winsorlube L-245X - (MIL-L-6085)
0-12	Teresso V78
0-13	Dow Corning 200-20 - (VV-D-001078)
0-14	Esso Turbo Oil 2389 - (MIL-L-7808G)
0-15	Tenneco L401D - (MIL-L-6085)
0-17	G.E. Versilube F-50 - (MIL-S-81087(I))
0-18	G.E. SF96
0-19	G.E. Versilube F44 - (MIL-S-81087(II))
0-20	Dow Corning - 710
0-21	Hercoflex 600
0-22	Tenneco L423
0-23	Dow Corning 510-12000
0-24	EP Pioneer #10 - (MIL-L-6085)
0-25	Dow Corning 510-50
0-26	Teresso V79
0-27	Barden 0-26 plus add.
0-28	Mobil XRL-714
0-29	Kendall KG-80
0-30	Kendall SRG-60
0-31	Bray NPT-3A
0-32	Mobil XRL-743A
0-33	DuPont Krytox 143AZ
0-34	DuPont Krytox 143AA
0-35	DuPont Krytox 143AB
0-36	DuPont Krytox 143AC
0-37	Barden - Moon Oil
0-38	Barden preservative
0-39	Kendall SRG160

When above symbols are used alone, standard quantities, which vary with bearing size will be furnished.

MIL-HDBK-203C
 5 January 1977

FR: THE BARDEN CORPORATION (con.)

CODE 70854

SYMBOL	DESCRIPTION
<u>GROUP 12 - LUBRICANTS</u>	
B. GREASES	
SG-1	Anderson Slushing Grease
SG-2	Anderson Slushing Grease
G-2	Beacon 325
G-4	Mobil BRB Lifetime - (MIL-L-7711)
G-6	Esso Andok C
G-8	Tenneco L793A
G-10	Dow Corning - 44 Light - (MIL-L-15719)
G-12	Chevron Oil Co. - BRB #2 - (MIL-G-3545)
G-14	Dow Corning - 33F, L, M
G-16	American Supermil M-40
G-18	Tex Unitemp 500
G-20	Am. Supermil ASU M100
G-21	G.E. Versilube G-300
G-22	12 percent G-21; 78 percent 0-17
G-23	Aeroshell #5 - (MIL-G-63545)
G-24	Shell ETR-B
G-27	MPB Minipure - (MIL-G-15793)
G-28	Esso Andok B - (MIL-G-18709)
G-29	Esso Andok 260
G-32	Am. Supermil A72832 - (MIL-G-23827)
G-33	Mobil #28 - (MIL-G-81322)
G-34	DuPont Krytox 240AZ
G-35	DuPont Krytox 240AB - (MIL-G-38220)
G-36	DuPont Krytox 240AC - (MIL-G-27617)
G-37	American ASU 31052 - (MIL-G-25013)
G-42	Texaco Regal Starfak #2

When above symbols are used alone, standard quantities, which vary with bearing size will be furnished.

MIL-HDBK-203C
 5 January 1977

MFR: THE BARDEN CORPORATION (con.)

CODE 70854

SYMBOL	DESCRIPTION
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GROUP 12 - LUBRICANTS

C. SPECIAL OIL LUBRICATION PROCEDURE

SYMBOL	DESCRIPTION
0-(XX)-n	Specific oil quantity (n - No. of drops, needle size #26)
(V) (0) -(XX)-A	Centrifuge bearing 2 minutes at 100g after lubrication.
(V) (0) -(XX)-B	Centrifuge bearing 2 minutes at 400g after lubrication.
(V) (0) -(XX)-C	Centrifuge bearing 2 minutes at 200G after lubrication.
F0-(XX)-(x-y mg)	Film oiled specific quantity - (x-y mg).
FV(XX)-(x-y mg)	Film oiled non-metallic cages after vacuum impregnation. (x-y mg)
F0-(XX)B(x-y mg)	Film oiled - internal surfaces only (x-y mg)
F(V) (0) (XX)D	Film oiled - light
V(XX)	Vac. impregnated - non-metallic cage
V(XX)G XX	Vac. impregnate plus grease

(XX) is oil code no. - XX is grease code no.

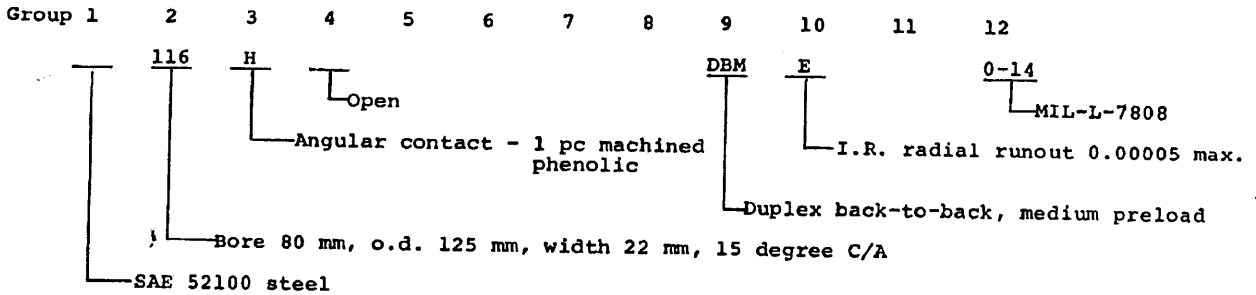
D. SPECIAL GREASE LUBRICATION PROCEDURE

SYMBOL	DESCRIPTION
G-(XX)(x-y cmm)	Specific grease quantity (x-y in cmm.)
F5(XX)	Film grease 5 milligrams per square inch
F15(XX)	Film grease 15 milligrams per square inch
FG(XX)B(x-y mg)	Film grease - specific grease quantity (x-y in mg)
MG(XX)	Film grease - low starting torque

(XX) is grease or oil code no.

EXAMPLE:

SPINDLE BEARING - 116HDBME 0-14



MIL-HDBK-203C
 5 January 1977

BCA DIVISION OF FEDERAL-MOGUL CORPORATION

CODE 06388

Prefix	Suffix	Definition
	A	Single-row, 25 degree angular contact
BIW		Single-row, radial, Conrad, wide inner ring, eccentric self-locking collar
BNW		Single-row, radial, Conrad, external self-aligning, wide inner ring, eccentric locking collar
	CC	Double rubbing seal
CT		Clutch throwout, thrust type
CTB		CT bearing with plain band housing
CTD		CT bearing, with a double diameter housing
CTE		CT bearing, with housing having extended end
CTL		CT bearing, with one spherical faced washer
CTS		CT bearing, with ferrule or sleeve in the bore
CW		Clutch release bearing without housing, but having a wide radial face on one side
CWM		CW bearing, with malleable housing
CWV		CW bearing, with felt seal type housing
CWX		CW bearing, with X type housing
CWY		CW bearing, with Y type housing
CX		C bearing, with X type housing
CY		C bearing, with Y type housing
CYN		C bearing, with Y type housing and with pipe nipple
	E	Extended inner ring
	EA	Single-row, off-set, 25 degree angle at contact
EL		Extended inner ring
	EN	Single-row, off-set, 15 degree angle of contact
	ET	Single-row, off-set, 30 degree angle of contact
	F	Felt seal, single
	FB	Retainer fitted with porous bronze bushing around each ball and felt segments between bushings, pre-lubricated type
	FF	Double felt seal
	G	Composition seal, single
	GG	Double composition seal
	GS	Seal and shield
	L	Snap ring
N		Narrow outer race (applies to sealed bearings)
	N	Single-row, 15 degree angle of contact
	PF	Retainer equipped with felt segments, pre-lubricated type
	PG	Plain retainer, pre-lubricated type
	S	Single shield
	SL	Shield and snap ring
	SS	Double shield
	SSL	Double shield and snap ring
	T	Single-row, 30 degree angle of contact
	W	Wide inner ring extended to one side
	WL	Wide inner ring with labyrinth seal
	1	Standard fit
	2	Tight fit
	3	Loose fit
		NOTE: Thrust bearings - metric and inch series
		TA metric series - medium
		TB inch series - light
		TB inch series - medium
		Same as AFBMA standards, bearing
		Identification code
	01	Grease not specified or not applicable
	02	Andok B
	03	Andok C
	04	Andok 260
	05	Lubriko M24
	06	Chevron OHT
	07	Mobilplex EP-2
	08	Alvania #2
	09	Alvania #3
	10	Darina AX
	11	Darina EP-2

MIL-HDBK-203C
 5 January 1977

MFR: BCA DIVISION OF FEDERAL-MOGUL CORPORATION (con.)

CODE 06388

Prefix	Suffix	Definition
	12	Texaco HT 1999
	13	Beacon 325
	14	Aeroshell 7A
	15	Aeroshell 16
	16	DC44
	17	Cyprina #3
	18	Alvania EP-2
	19	Super Mil ASU M40 (Standard of Ind.)
	20	Rykon #2
	21	Aeroshell #5
	22	Chevron BRB-2
	23	Special BCA Mix (Mt. Hope) (see R-45)
	24	Unitemp 500
	25	DC55
	26	SRI-2

How to read BCA bearing numbers:

EXAMPLE:

N209GS

N 209 G S
 Narrow outer race
 Basic bearing number
 Composition seal on one side
 Shield on opposite side

EXAMPLE:

CT66A

CT 66 A
 Clutch throw out-thrust type
 Basic bearing number
 Single row, 25 degree angular contact

MIL-HDBK-203C
 5 January 1977

3: BOWER ROLLER BEARING DIVISION OF FEDERAL MOGUL CORPORATION

CODE 08162

TAPERED ROLLER BEARINGS

<u>OLD SYSTEM</u>			<u>NEW SYSTEM</u>		
<u>PREFIX/SUFFIX</u>	<u>PART</u>	<u>EXPLANATION</u>	<u>PREFIX/SUFFIX</u>	<u>PART</u>	<u>EXPLANATION</u>
A	Cone and cup	Applies to certain series and their cone and cup numbers. A4000, A4057, etc. A6000, A6157, etc.	EL	Cone and cup	Extra light.
			LL	Cone and cup	Lighter than light.
			L	Cone and cup	Light.
			LM	Cone and cup	Light medium.
-A	Cage	Type A steering gear bearing cage. 5A, 11A, etc. Superseded by type BA.	M	Cone and cup	Medium.
			HM	Cone and cup	Heavy medium.
-A	Cone and cup	Extra part number, 6A, 359-A, 15250-A, etc.	H	Cone and cup	Heavy.
			HH	Cone and cup	Heavier than heavy.
-AB	Cup	Flanged cup.	EH	Cone and cup	Extra heavy.
-AC	Cup	Extra part number.			
-AD	Cup	Double cup.			
-AS	Cone and cup	Extra part number.	-A		Bearing width closer than standard.
-AW	Cone	Slotted or keyway cone.	-A	Cup	Cup with threaded section on o.d.
-AX	Cone and cup	Extra part number. 14138-AX-lapped front face.	-AA	Cone	Cone, ground o.d. for seal surface.
-B	Cup	Flanged cup.	-B	Cup	Flanged cup.
-BA	Cage	Type BA steering gear bearing cage. 5BA, 11BA, etc. (conical head rollers.)	-B	Cone	Cone with brass retainer.
			-BR	Cone and cup	Cone or cup with snap ring.
			-BW	Cup	Flanged cup with slot or keyway.
-BC	Cage	Type BC steering gear bearing cage. 5BC, 11BC, etc. (flat head rollers.) Note: types BC and BA are not interchangeable.	-C	Cone	New design of series (cone and roller).
			-CP	Cone and cup	Chrome plated cone and cup.
-BS	Cup	Flanged cup.	-D	Cone	Double cone.
-BW	Cup	Flanged cup with slot or keyway.	-D	Cup	Double cup.
			-DA	Cup	Double - spherical o.d. - self-aligning.
-BX	Cup	Flanged cup.	-DB	Cup	Flanged double cup.
-C	Cage	Type C steering gear bearing cage. 5C, 11C, etc. superseded by type BC.	-DC	Cup	Double cup - no oil holes or groove - special pin hole.
			-DD	Cone	Extra long double cone.
-C	Cone and cup	Extra part number. 453-C.	-DD	Cup	Extra long double cup.
-CA	Cone	Relief groove in backface or extra part number. 4CA	-DE	Cone	Double cone.
			-DE	Cup	Double cup with special pin hole.
-CB	Cone	Relief groove in front face or extra part number. 4CB.	-DF	Cup	Double cup with snap ring groove on o.d.
-CC	Cone	Relief groove in both faces.			

MIL-HDBK-203C
 5 January 1977

MFR: BOWER ROLLER BEARING DIVISION OF FEDERAL MOGUL CORPORATION (con.)

CODE 08162

TAPERED ROLLER BEARINGS

<u>OLD SYSTEM</u>			<u>NEW SYSTEM</u>		
<u>PREFIX/SUFFIX</u>	<u>PART</u>	<u>EXPLANATION</u>	<u>PREFIX/SUFFIX</u>	<u>PART</u>	<u>EXPLANATION</u>
-CE	Cup	Extra part number. 6CE, 14CE.	-DS	Cup	Double cup width crowned o.d.
-CP	Cone and cup	Chrome plated cone or cup.	-DW	Cone	Slot or keyway in double cone.
-CS	Cone and cup	Extra part number. 13CS, 394-CS.	-DW	Cup	Slot or keyway in double cup.
-D	Cone	Double cone.	-DX	Cup	Outer ring for self-aligning DA cup.
-D	Cup	Double cup.	-EA	Spacer	Cup spacer (standard).
-DA	Cone	Extra part number.	-EB	Spacer	Additional cup spacer.
-DB	Cup	Flanged double cup.	-EC	Spacer	Additional cup spacer.
-DD	Cone	Extra long double cone.	-ED	Spacer	Additional cup spacer.
-DE	Cone	Double cone.	-EE	Spacer	Additional cup spacer.
-DS	Cup	Double cup with crowned o.d.	-EF	Spacer	Additional cup spacer.
-DW	Cone	Slot or keyway in double cone.	-ES	Cone and cup	Extra part number.
-DW	Cup	Slot or keyway in double cup.	-K	Spacer	Additional spacer.
-E	Cone and cup	Extra part number.	-L	Cone	Cone, ground flange for seal.
-ED	Cup	Double cup.	-LA	Cone	Cone, ground flange for seal and ring groove in bore.
EE	Cone	Special cone design. Not to be interchanged with part it supersedes.	-NA	Cone	Factory adjusted cone (two used with D cup).
-F	Cone	Extra part number.	-NC	Cup	Cushioned cup.
NA	Cone	Factory adjusted cone (two used with D cup).	-NW	Cone	Factory adjusted cone with slotted front face. (Two used with D cup.)
-NX	Cone	Lapped front face.	-R	Spacer	Snap ring type spacer.
-R	Cone and cup	Extra part number. Special radius. 415-R, 3420-R.	-RA	Cup	Cup - crowned i.d.
-RB	Cup	Snap ring groove in o.d.	-S	Cup	Cup - crowned i.d.
-S	Cone	Slotted or keyway cone.	-SD	Cone	Double cone with square hole bore.
-S	Cone and cup	Extra part number.	-T	Cone and cup	Tapered cone bore or tapered cup o.d.
-SA	Cone and cup	Extra part number.	-TD	Cone and cup	Tapered bore double cone or tapered o.d. double cup.
-SB	Cup	Flanged cup.			
-SD	Cup	Double cup.			
-SP	Cup	Extra part number.			
-SR	Cone and cup	Extra part number.			
-SW	Cone	Slotted or keyway cone.			
-SX	Cone and 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 and cup	Slot or keyway in or cup.			

MIL-HDBK-203C
 5 January 1977

R: BOWER ROLLER BEARING DIVISION OF FEDERAL MORGUL CORPORATION (con.)

CODE 08162

TAPERED ROLLER BEARINGS

<u>OLD SYSTEM</u>			<u>NEW SYSTEM</u>		
<u>PREFIX/SUFFIX</u>	<u>PART</u>	<u>EXPLANATION</u>	<u>PREFIX/SUFFIX</u>	<u>PART</u>	<u>EXPLANATION</u>
X	Cone and cup	Experimental part.	-W	Cone	Two angular slots on cone back face.
-X	Cone	Slotted or keyway cone.	-W	Cup	Cup with threaded section on o.d. and 1 slot.
-X	Cone and cup	Extra part number.	-WA	Cone	Single angular slot on cone back face.
-XA	Cup	Extra part number.	-WB	Cone	Two straight slots on cone back face.
-XD	Cone	Double cone.	-WC	Cone	Full length slot (keyway) thru cone bore.
-XW	Cone	Slotted or keyway cone.	-WD	Cone	Special slot or keyway.
			-X	Cone and cup	Extra part number.
			-XA	Cone	Cone spacer (standard).
			-XB	Cone	Additional cone spacer.
			-XC	Cone	Additional cone spacer.
			-XD	Cup	Double cup without oil holes and groove.
			-XE	Cone	Additional cone spacer.
			-XS	Cup	Cup, extra part number.
			-XS	Cup	Cup spacer.
			-YD	Cup	Double cup oil holes only in o.d.

MIL-HDBK-203C
 5 January 1977

MFR: BOWER ROLLER BEARING DIVISION OF FEDERAL MOGUL CORPORATION (con.)

CODE 08162

SIGNIFICANCE OF TAPERED ROLLER BEARING SPACER NUMBERS

EXAMPLE:

Given - Y3S 3920

Y	3	S	3920
X - Cone Spacer	Design Sequence	S - Soft H - Hardened	Adjacent Cone or Cup Number

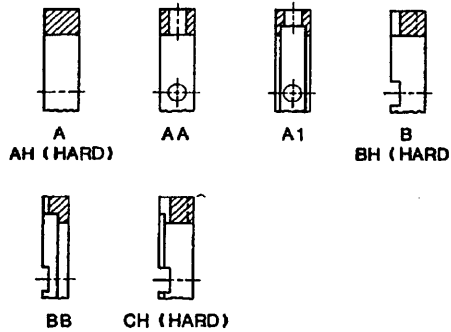
Given - HM237535XB

HM237535	X
Cone or Cup Number	X - Cone Spacer E - Cup Spacer

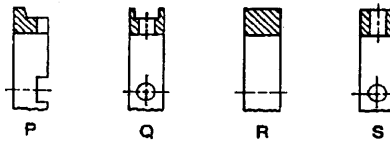
B
Design Sequence

TYPES OF CONE AND CUP SPACERS

CONE SPACERS



CUP SPACERS



CYLINDRICAL ROLLER BEARINGS

EXPLANATION OF NUMBERING SYSTEMS

- I. Bower straight roller bearings consist of solid rollers, solid inner, and outer races.
- II. The number denotes the size, while the letters denote the kind of races and roller assemblies.
- III. The prefix letter "M" is shown on both races, therefore it is of no value in identification when used as a prefix, other than to denote that the bearing is manufactured to metric size.
- IV. All letters preceding the bearing number pertain to the inner race. All letters following the number refer to the outer race and designate whether the bearing has a cage or has a full complement of rollers.

MIL-HDBK-203C
 5 January 1977

BOWER ROLLER BEARING DIVISION OF FEDERAL MOGUL CORPORATION (con.)

CODE 08162

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 "Max-Pak".)
		D		5 mm undersize bore. (Applies to "Max-Pak".)
		D	D	Special inner race plate. Used with MS- or ME-type inner race.
	E			Plain cylindrical inner race, narrower than standard.
		E		10 mm undersize bore. (Applies to "Max-Pak".)
		F		Special single flange cylindrical inner race.
		F		15 mm undersize bore. (Applies to "Max-Pak".)
		G		20 mm undersize bore. (Applies to "Max-Pak".)
		H		Hole in o.d. (Applies to "Max-Pak".)
		L		Special width only. (Applies to "Max-Pak".)
M				Denotes metric series.
		N	N	Inner race plate. Used with MS- or ME-type inner race.
	R			Single flange cylindrical inner race.
		R		Special bore radius both ends.
			R	Bore radius on opposite side of flange.
R				Special series. A NON-AFBMA standard.
	S			Short single flange cylindrical inner race.
		S		5 or 10 mm smaller bore.
			S	5 or 10 mm smaller bore.
		T		5 or 10 mm smaller bore.
			T	5 or 10 mm smaller bore.
	U			Double flange cylindrical inner race.
		U		Special features, small bore, etc.
		X		Special features.
		Y		Single flange cylindrical inner race with retaining ring in o.d. (non-separable type)
	J			Metric bearing with inner race and outer race removed. Cage pilots on shaft.
M	O	J		Metric bearing with inner race and outer race removed. Cage pilots in housing.
T	W			Special conveyor wheel bearing A NON-AFBMA standard.
		5		Double width inner race (5000, 5200, and 5300 series).
		7		Standard width inner race (7200 and 7300 series).
W				High capacity bearing - "MAX-PAK".
	W			High capacity bearing - "MAX-PAK".
		W		High capacity bearing - "MAX-PAK".
	X			Roller assembly. "X" bar design. (Applies to "Max-Pak".)

MIL-HDBK-203C
 5 January 1977

MFR: BOWER ROLLER BEARING DIVISION OF FEDERAL MOGUL CORPORATION (con.)

CODE 08162

Position of letter in suffix of part number					Applies to complete bearing assembly
1st	2nd	3rd	4th	5th	Explanation
	A				"A" series, standard oversize o.d. and i.d., small identification groove in o.d.
B					Plain cylindrical outer race, counter bore in i.d. both ends.
	B	B			Special features.
C					Plain cylindrical outer race. Could appear in the 2nd position if preceded by the letter "G".
	C				Oversize i.d., small identification groove in o.d.
D					Single flange cylindrical outer race. Could appear in the 2nd position if preceded by the letter "G".
	D	D			Special width etc.
E					Double flange cylindrical outer race. Could appear in the 2nd position if preceded by the letter "G".
	E	E			Oversize i.d., special width, etc.
	F				Riveted steel cage, used with M-B type outer race.
G					Standard snap ring groove in o.d.
	G				Snap ring groove in center of o.d.
	G	G			Snap ring groove in o.d. side. (Applies to "Max-Pak".)
	H				Blind hole in o.d., oversize i.d., width, etc.
	H	H			Blind hole in o.d.
	H	H			Blind hole in o.d. center. (Applies to "Max-Pak".)
J	J	J	J	J	One piece machined bronze cage.
K					Double flange cylindrical outer race, spherical o.d. (self-aligning type.)
L	L	L	L	L	Riveted steel cage. Flange guided.
	M	M	M		Full complement bearing, no cage.
	N	N	N		Outer race plate, used with M-S type outer race.
	O				Oversize o.d. and i.d., identification groove in o.d.
P					Plain cylindrical outer race, spherical i.d. (self-aligning type.)
	R				Aligning ring for "X" or "P" type outer race.
	R				Special o.d. radius.
			R	R	Snap ring assembled with part.
S					Short single flange cylindrical outer race.
		S			Special features.
T					Plain cylindrical outer race, two snap rings in i.d. for roller retainment.
	T	T	T	T	Close tolerance on dimension, "From end of roller to face of inner race."
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				Special width outer race plate. Used with M-S type outer race.
		W			Special width outer race.
			W		Special width outer race.
	X	X	X		Special width outer race plate. Used with M-S type outer race.
X	X	X	X	X	Riveted steel cage. Roll guided. (Applies to "Max-Pak".)
	Z				Special width outer race.

MIL-HDBK-203C
5 January 1977

FR: COOPER SPLIT ROLLER BEARING CORPORATION

CODE 08197

PRODUCT IDENTIFICATION

NUMBER SEQUENCE:
SERIES-COMPONENT-SIZE-TYPE

SERIES - 01, 02, 03

Components

B	Comprising	1 split inner race (2 halves), 2 split clamping rings with high tensile screws, 1 split cage with rollers and jointing clips and 1 split outer race (2 halves).
BC	Comprising	1 roller bearing in halves throughout, 1 split cartridge housing complete with high tensile screws and one set aluminum triple labyrinth seals (up to 12 inch shaft size).
BCP	Comprising	1 roller bearing in halves, 1 split cartridge housing, 1 set aluminum triple labyrinth seals, 1 pedestal base and cap with high tensile screws.
BCF	Comprising	1 roller bearing in halves, 1 split cartridge housing, 1 set aluminum triple labyrinth seals, and 1 split flange housing (2 halves) with high tensile screws.
P	Comprising	Pedestal base and cap with high tensile screws.
C	Comprising	Cartridge housing only (2 halves) with high tensile screws but not including seals.
ATLS	Comprising	Aluminum triple labyrinth seals. Interchangeable between the three series.

Size

The first digit of a three digit number or the first two digits of a four digit number represents the whole inch size. The last two digits in a three or four digit number represent the number of sixteenths to be added to that whole inch size.

Example: 315 - Three inches and fifteen sixteenths (3-15/16 inches)
408 - Four inches and eight sixteenths (4-1/2 inches)
500 - Five inches and zero sixteenths (5 inches)
1108 - Eleven inches and eight sixteenths (11-1/2 inches)
1400 - Fourteen inches and zero sixteenths (14 inches)

Type

EX - Expansion type - Up to and including 6-inch shaft size
EXIP - Expansion type - Plain inner race style over 6-inch shaft size
EXIG - Expansion type - Grooved inner race style over 6-inch shaft size
EXOG - Expansion type - Grooved outer race style

The above types are for radial loads only.

GR - Fixed type - Grooved inner and outer races for both radial and axial loads.

Example: 01BCP-715-EXIG (7-15/16 inch Pillow lock)

01 series, roller bearing in halves, split cartridge housing complete with aluminum triple labyrinth seals, pedestal base and cap. For 7-15/16 inch journal size. Expansion type with grooved inner race.

MIL-HDBK-203C
 5 January 1977

MFR: DODGE MANUFACTURING DIVISION OF RELIANCE ELECTRIC COMPANY

CODE 71956

Prefix	Suffix	Definition
*D400		Bearing unit, ball, type SC pillow block, self-aligning, seals, extended inner ring and locking collar on bearing, 2-bolt base, direct mounting, fixed type.
*D401		Bearing unit, ball, type SC flanged housing, self-aligning, seals, extended inner ring and locking collar on bearing, direct mounting, fixed type available in 2-bolt base and 4-bolt base.
*D402		Bearing unit, ball, type SC cylindrical unit, self-aligning, seals, extended inner ring and locking collar on bearing, direct mounting, fixed type.
*D403		Bearing unit, ball, type SC take-up unit, self-aligning, seals, extended inner ring and locking collar on bearing, direct mounting, fixed type.
*D404		Bearing unit, ball, type SC take-up unit self-aligning, seals, extended inner ring and locking collar on bearing, direct mounting, fixed type; a hole and slot are provided for the unthreaded end of an adjusting screw and for the collar pinned to the screw.
*D405		Bearing unit, ball, type SC hanger box, self-aligning, seals, extended inner ring and locking collar on bearing, direct mounting, fixed type.
*D406		Bearing unit, ball, type SC screw conveyor hanger box, self-aligning, seals, extended inner ring and locking collar on bearing, direct mounted, fixed type.
D408		Bearing unit, tapered roller, type E pillow block, seals, extended inner ring and two locking collars on bearing, 2- and 4-bolt base, direct mounting, fixed type. Pillow blocks available with both cast iron and steel housing.
D409		Bearing unit, tapered roller, double interlock type pillow block self-aligning, seals, extended inner ring and two locking collars on bearing, split housing, 2- or 4-bolt base, direct mounting, fixed type unless otherwise specified. Maximum shaft size available for 2-bolt base housing is 3-1/2 inches. Minimum shaft size available for 4-bolt base housing is 2-1/4 inches.
D410	B1	Double interlock type unit may be used either fixed or floating by providing suitable means for locating the unit axially in its mounting. NOTE: B1 units are not designed for use in our standard pillow block housings.
D410	D	Double interlock type unit used in the double interlock, fixed type pillow block.
D410	S1	Double interlock type unit used in the double interlock, floating type pillow block.
D411		Bearing unit, tapered roller, type C pillow block, self-aligning, triple steel seals; slotted and threaded sleeve extends completely through bearing, two locking collars on bearing, split housing, direct mounting, 2- or 4-bolt base, fixed type unless otherwise specified.
D412	B1	C type unit may be used either fixed or floating by providing suitable means for locating the unit axially in its mounting. NOTE: B1 units are not designed for use in our standard pillow block housings.
D412	D	C type unit used in the C fixed type pillow block.
D412	S1	C type unit used in the C floating type pillow block.
D413		Bearing unit, tapered roller, special pillow block, self-aligning, piston ring seals, 2- or 4-bolt base, split housing, tapered bore with adapter mounting, fixed type unless otherwise specified.
D414	B1	Special duty type unit may be used either fixed or floating by providing suitable means for locating the unit axially in its mounting. NOTE: B1 units are not designed for use in our standard pillow block housings.
D414	D	Special duty type unit used in the fixed special duty pillow block.
D414	S1	Special duty type unit used in the floating type special duty pillow block.
D416		Bearing unit, tapered roller, all steel pillow block, self-aligning, double piston ring seals, two locking collars, 4-bolt base, tapered bore with adapter mounting, fixed type unless otherwise specified.
D417		Bearing unit, tapered roller, all steel cartridge unit, self-aligning, double piston ring seals, two locking collars, 2 end plates and rings, tapered bore with adapter mounting, fixed type unless otherwise specified.

*Locking collars are not used on sizes 1 inch and smaller. Locking to the shaft is achieved by setscrews in the extended inner race.

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DODGE MANUFACTURING DIVISION OF RELIANCE ELECTRIC COMPANY (con.)

CODE 71956

fix	Suffix	Definition
D418		Bearing unit, tapered roller, type E flange housing, seals, extended inner ring and locking collar on bearing, direct mounting, fixed type.
D419		Bearing unit, tapered roller, double interlock flange housing, self-aligning, seals, extended inner ring and two locking collars on bearing, split housing, direct mounting, fixed type unless otherwise specified.
D420		Bearing unit, tapered roller, type C flange housing, self-aligning, triple steel seals; slotted and threaded sleeve extends completely through bearing, two locking collars on bearing, split housing, direct mounting, fixed type unless otherwise specified.
D421		Bearing unit, tapered roller, special duty flange housing, self-aligning, piston ring seals, split housing, tapered bore with adapter mounting, fixed type unless otherwise specified.
D438		Bearing unit, ball, type SC take-up, incorporates the SC ball bearing unit.
D439		Bearing unit, ball type G take-up incorporates the SC ball bearing unit.
D440		Bearing unit, tapered roller, type E take-up incorporates the type E roller bearing unit.
D443		Bearing unit, tapered roller, type C elevator boot take-up, incorporates type C tapered roller bearing unit.
D445		Type C hanger bearings consisting of two tapered roller bearings mounted on a ground sleeve and fitted in a housing, used with any 2 point or 4 point hanger frame.
D446		Bearing unit, ball type SC hanger bearing, incorporates the SC type bearing unit.
D620		SCM medium duty take-up unit ball bearing.
D621		SCM medium duty wide slot take-up ball bearing.
D622		SCM medium duty flange mount ball bearing available in 2-bolt base and 4-bolt base.
D628		SCM medium duty pillow block ball bearing.
D629		SCM medium duty flange cartridge mount ball bearing.
D637		SLF light duty pillow block ball bearing.
7638		SLF light duty flange mount ball bearing available in both 2-bolt base and 3-bolt base.
.C		Ball bearing fan and blower pillow blocks.
SC		Take-ups.
SX		Take-ups.
SCM		Take-ups.
SCB		Pillow block.
SC		Piloted flange bearing.
SX		Pillow blocks.
SXB		Pillow blocks.
SX		4-bolt flange bearing.
SX		2-bolt flange bearing.
SX		Take-up bearing.
SX		Wide slot take-up bearing.
SX		Hanger bearing.
SX		Screw conveyor bearings.
SX		Cylindrical unit.
SCM		Piloted flange bearing.

MIL-HDBK-203C
 5 January 1977

MFR: THE FAFNIR BEARING COMPANY, DIVISION OF TEXTRON INC.

CODE 2133f

Prefix	Suffix	Definition
A		Stainless steel.
	A	Original maximum (filling slot type) (obsolete on most sizes) (super-seeded by W).
	A	Narrow series type.
	A	Medium duty aircraft type.
AA		Any steel other than 52100 and 440C stainless.
	AK	Lower torque retainer type, aircraft series (e.g. AW5AK).
B		Aircraft torque tube type (e.g. B542).
	B	Spherical O.D.
BCP		Bellcrank type aircraft bearing, plya-seals (e.g. BCP4W10).
	BF	Wide inner ring bearing, beveled O.D., felt seals.
	BR	Bronze retainer, stamped on box only.
	BS	External self-aligning aircraft torque tube type (e.g. KP25BS)
	BT	Special caterpillar replacement.
	CI, 2,	Denotes latest internal construction change, overall dimensions
	3, etc.	unchanged.
	CN	Special bearing, Chicago Pneumatic Tool.
CO		Cylindrical cartridge unit - (replacement bearing unit series MUOB).
	CR	Stamped on box only to designate composition retainer.
D		Track roller type, aircraft bearing (e.g. D7R6-2).
	D	Steel plate grease shield on one side of bearing.
	DB	Duplex back-to-back.
	DD	Steel plate grease shield on both sides of bearing.
	DDG	Double shield, snap ring and groove on O.D. of outer ring.
DF		Aircraft double-row.
	DF	Duplex face-to-face.
	DG	Single shield, snap ring and groove on O.D. on side opposite shield.
DPP		Aircraft, double-row, plya-seal type.
DR		Double row industrial roller bearings.
DRN		Double rigid pillow block.
DSA		Standard series double pillow block, two wide inner ring bearings with locking collars, each bearing single labyrinth sealed (replacement bearing unit series MUA).
DSADD		Same as DSA series except furnished with dust seal collars.
DSAO		Same as DSA series except heavy series (replacement bearing unit series MUOA).
DSAODD		Same as DSADD series except heavy series (replacement bearing unit series MUOA).
DSP		Double row self-aligning aircraft bearing, plya-seal, pre-lubricated.
DSRP		Aircraft self-aligning roller with plya-seals.
	DT	Duplex tandem.
	DU	Duplex universal flush ground for mounting DB, DF, or DT.
	DUL	Duplex universal, light deload.
	DUM	Duplex universal, medium deload.
	DUH	Duplex universal, heavy deload.
DW		Aircraft, wide, double-row.
	E	(Followed by four digit numeral) customer specification.
F		Flanged outer ring, mostly small instrument sizes.
	F	Synthetic rubber and felt washer, incorporated on integral part of mechani-seal on wide inner ring bearings.
FL		Aircraft fairlead bearings.
	FT	Full type (without a retainer).
G		Aircraft guide roll.
G		Relubricatable mechani-seal, wide inner ring bearing.
	G	Snap ring and groove on O.D. of outer ring.
G	KLL	Double mechani-seal wide inner ring power transmission bearing, with provision for relubrication, not external self-aligning, with eccentric locking collar.
G	KLLB	Double mechani-seal wide inner ring power transmission bearing, with provision for relubrication, external self-aligning with eccentric locking collar.
G	Y	Push pull type guide bearing (e.g. G4Y17).
GD		Aircraft guide roll.
	GE	Suffix for few narrow series.
GN		Heavy series, relubricatable, wide inner ring, mechani-seal bearings.

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THE FAFNIR BEARING COMPANY, DIVISION OF TEXTRON INC. (con.)

CODE 21335

Prefix	Suffix	Definition
H		Stamped on box only, designates snug internal fit-up.
	H	Heavy aircraft series.
	K	Latest Conrad (non-filling slot) type.
J		Extra loose internal fit.
KA		Aircraft aero seal type.
	KD	Conrad type, single shield.
	KDD	Conrad type, double shielded.
KF		Aircraft single row, originally felt seals, now plya-seals, same designation.
	KL	Conrad construction, single mechani-seal.
	KL	Industrial power transmission ball bearing, wide inner ring, single seal.
	KLB	Industrial power transmission ball bearing, wide inner ring, single seal, external self-aligning.
	KLD	Conrad construction, single mechani-seal, single shield.
	KLL	Conrad construction, double mechani-seal.
	KLL	Industrial transmission bearing, wide inner ring, double seal.
KP		Aircraft single row plya-seal.
KP	A	Full type aircraft bearing, plya-seal, prelubricated, medium duty (e.g. KP20A).
KP	AR	Track roller type aircraft bearing (e.g. KP3AR11-2).
KP	B	Full type aircraft bearing, medium duty, plya-seal, prelubricated (e.g. KP37B).
KS		Aircraft, single-row, self-aligning.
KS	L	Self-aligning aircraft bearing, metal shield, prelubricated (e.g. KS3L).
	KT	Single felt seal, Conrad construction.
	KT	Wide inner type to denote change in outer ring size from original design.
	KTD	Conrad construction, one felt seal, one shield.
	KTT	Double felt seal, Conrad construction.
	KVL	Conrad construction, single mechani-seal.
	KVLD	Conrad construction, single mechani-seal, single shield.
	KVLL	Conrad construction, double mechani-seal.
	KVT	Single felt seal, Conrad construction.
	KVTD	Conrad construction, single felt seal, single shield.
L		Internal self-aligning type.
	L	Mechani-seal on one side of single-row radial and wide inner ring bearings.
	L	Left-handed thread, rod-end type.
LAK		Direct mounted ball bearing pillow block series designation (replacement bearing series G-KLLB), double mechani-seal, external self-aligning bearing.
LAO		Direct mounted ball bearing pillow block series designation (replacement bearing series GN-KLLB), double mechani-seal, external self-aligning bearing.
LC		Cylindrical cartridge unit (replacement bearing series G-KLLB).
LCJ		Flange cartridge unit, (replacement bearing series G-KLLB).
LCJO		Same as LCJ except heavy series (replacement bearing series (G-KLLB).
	LD	Mechani-sealed on one side, plate shield on other.
	LF	Mechani-sealed one side with felt or composition between seal members.
	LL	Mechani-seals both sides of bearing, radial and wide inner type.
	LLF	Mechani-seals both sides of bearing with felt or composition between seal members.
	LLG	Double mechani-seal, snap ring and groove on O.D. of outer ring.
LM		"L" means dovetail or undercut cam on wide inner bearings.
		The "M" means closer bore tolerances now standard.
LP		Special wide inner bearing, Proctor and Schwartz.
LTU		Take-up unit, (replacement bearing series G-KLLE).
M		ABEC-3 tolerance.
M	FS60000	ABEC-5 bearing, (last four digits of FS suffix are for customer specification).
	M	Male shank, rod-end type.
	MBR	Machined bronze retainer (stamped on box only).
MC		Motor cartridge unit (replacement bearing unit MUOA).
MM		Super-precision type manufactured to meet ABEC-7 specification.
	MS	Stamping size designation, flangette unit.

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MFR: THE FAFNIR BEARING COMPANY, DIVISION OF TEXTRON INC. (con.)

CODE 2133

Prefix	Suffix	Definition
	MSR	Machined steel retainer (stamped on box only).
2MM		ABEC-7 precision, 12 degree contact angle.
3MM		ABEC-7 precision, 25 degree contact angle.
MV		ABEC-7 modified.
MUA		Replacement bearing unit for DSA-DSADD pillow blocks.
MUB		Replacement bearing unit for SA-SAD-SADD type pillow blocks.
MUOB		Replacement bearing unit for SAO, SAOD, and SAODD pillow blocks.
N		Heavy series, non-relubricatable wide inner ring mechani-seal bearings.
	N	Double row bearings, 5000 series, Old American, narrow width prior to SAE standards. (note: 5000 series without suffix "N" is present SAE standard width).
	N	6000 series, Old American width in inches. (note: 6000 series without suffix "N" is European metric width).
	N	One shielded bearings closer fitting grease shield with more land on bearing face.
N	KLL	Industrial power transmission bearing, double sealed, wide inner ring, with eccentric locking collar.
N	KLLB	Industrial power transmission bearing, double sealed, wide inner ring with eccentric locking collar, external self-aligning.
NLTU		Take-up unit frame, pressed steel for side mounting.
	NP	Single non-removable plya-seal.
	NPP	Two non-removable plya-seals.
O		Super-quiet series.
P		Stamped on box only, indicates loose internal fit-up.
P		Aircraft special pulley bearings.
	P	Plya-seal on one side of bearing.
	PP	Plya-seal on both sides of bearing.
PSM	S	Replacement bearing for SAL pillow block.
PSM	TS	Replacement bearing for SAL pillow block.
	PW	Extra duty radial, thrust type 7000 series.
R		Single cage roller bearing.
R		Regular fit-up.
	R	Right-hand thread rod-end type.
RA		Extended inner ring series with collar.
RB		Double shielded relubricatable wide inner ring bearings used in rubber pillow block.
RBG		Rubber pillow block with provision for relubrication.
RBGF		Rubber flange cartridge unit.
RBGU		Same as RBG except furnished with corrosion-resistant steel strap.
RE		Aircraft rod-end bearing.
REB		Rod-end type.
REP		Precision aircraft rod-ends.
RS		Rubber pillow block, no provision for relubrication.
RSC		Rubber cylindrical cartridge unit.
RSU		Same as RS except furnished with corrosion-resistant steel strap.
S		Small inch dimensions sizes.
S		Known as aerolite type for aircraft service, few special aircraft sizes.
	S	External self-aligning type, spherical surface on the O.D. is matched with an internal spherical surface of an extra ring having a straight or flat O.D. used to designate single- and double-row and wide inner ring bearings.
	S	Solid shank, rod-end type.
S	HD	Dust seal collar, SADD pillow block.
S	K	Collar, wide inner power transmission bearing (e.g. S1113K).
S	KD	Dust seal collar, SADD series pillow block.
S	KT	Eccentric locking collar for wide inner ring bearing (e.g. SLL08KT).
S	KTD	Dust seal collar, SADD pillow block.
S	WD	Dust seal collar, SAOD or SAODD pillow block.
SA		Direct mounted ball bearing pillow block series designation (replacement bearing unit MUB series) single labyrinth sealed external self-aligning bearing.
SA	KD	Dust seal collar only for SADD pillow block.
SA	WD	Dust seal collar, SADD series pillow block.
SAD		Pillow block designation, same as SA series except furnished with dust seal collar.

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MFR: THE FAFNIR BEARING COMPANY, DIVISION OF TEXTRON INC. (con.)

CODE 21335

Prefix	Suffix	Definition
SADD		Pillow block designation, same as SA and SAD except furnished with dust seal collar and rear dust seal.
SAL		Direct mounted ball bearing pillow block (replacement bearing series PSM-S or PSM-TS), furnished fixed or floating, external self-aligning bearing.
SAN	KD	Dust seal collar, SAOD or SAODD pillow block.
SAN	WD	Dust seal collar, SAOD or SAODD pillow block.
SAO		Direct mounted ball bearing pillow block series designation (replacement bearing unit series MUOB), single labyrinth sealed external self-aligning bearing.
SAOD		Pillow block designation, same as SAO except furnished with dust seal collar.
SAODD		Pillow block designation, same as SAO and SAOD except furnished with dust seal collar and rear dust seal.
SAOL		Same as SAL series except for heavier section.
SCS		Countershaft box unit (replacement bearing unit series MUB).
SM		Power transmission bearing, single-row, external self-aligning with aligning ring, wide inner ring with eccentric locking collar.
SM	B	Industrial power transmission bearing, single-row, external self-aligning, wide inner ring with eccentric locking collar, single labyrinth seal.
SM	K	Power transmission bearing, single-row, radial, wide inner ring, with eccentric locking collar.
SM	KB	Power transmission bearing, single-row, external self-aligning, wide inner ring with eccentric locking collar.
	SMBR	Silicon, machined bronze retainer.
SMN		Power transmission bearing, single-row, external self-aligning with aligning ring, wide inner ring with eccentric locking collar, heavy series (no suffix).
SMN		Bearing same as for SM except bearing is 300 series.
SMN	A	Replacement bearing for DSAO and DSAODD series pillow blocks.
SMN	B	Power transmission bearing, single row, external self-aligning, single labyrinth seal, wide inner ring with eccentric locking collar.
SMN	K	Power transmission bearing, single-row, radial, wide inner ring with eccentric locking collar, heavy series.
SMN	KB	Power transmission bearing single-row, external self-aligning, wide inner ring with eccentric locking collar, heavy series.
SMO		Similar to SMN except longer inner ring, old designation.
SN	H	Eccentric locking collar.
SN	HD	Dust seal collar, pillow block.
SN	K	Eccentric locking collar for wide inner ring power transmission bearing (e.g. SN103K).
SN	KD	Dust seal collar, pillow block.
SN	WD	Dust seal collar.
SNW		Adapter sleeve, locknut, and lockwasher.
	SR	Steel retainer.
T		Stamped on box only, indicates tight internal fit-up.
T		Rear dust seal when followed by shaft size (e.g. T-13143 X 1-7/16 inches).
	T	Felt seal on one side of bearing.
T	D	Housing, pillow block with dust seal collar.
	TD	Single seal and shield.
	TG	Single felt seal, snap ring and groove on O.D. of outer ring on side opposite seal.
	TT	Felt seal on both sides of bearing.
TU		Take-up unit frame, cast iron.
W		Wide type plya-seal bearing.
	W	Latest maximum capacity (filling slot) type.
	W	20 degree angle in smaller sizes, 7200 and 7300 series.
	W	(followed by numeral) width of inner ring in sixteenths, ball crank type.
	WD	Loading groove construction, single shield face opposite groove.
	WI	Maximum type (W) counterbored on outer ring.
	WI	Also aircraft helicopter bearing.
WIR		Single-row bearing, inner ring extended on one side to double-row width.
	WP	7000 series with 35 degree contact angle, same note as for WI (superse- ded by 7000PW series).

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MFR: THE FAFNIR BEARING COMPANY, DIVISION OF TEXTRON INC. (con.)

CODE 21335

Prefix	Suffix	Definition
Y		Aircraft special helicopter bearings.
Y	PWI (DB)	Aircraft bearing, medium duty, retainer type, duplex (DB), plya-seal (e.g. Y96PWIDE).
2		12 degree contact angle in radially fitted bearings.
3		25 degree contact angle in radially fitted bearings.
	-2, -3, -4, etc.	Any bearing number followed by a dash and another single digit, indicates a bearing differing from standard (as represented by the bearing number proper) in one respect or another.

How to read FAFNIR ball bearing numbers:

EXAMPLE:

MMW205PP E5638
 MM W 205 PP E5638 FS166B
 Super-precision ABEC-7 tolerance
 Wide type plya-seal bearing
 Basic number
 Plya-seals on both sides
 Special feature specification

EXAMPLE:

P305KDD FS160K
 P 305 K DD FS160C
 Loose internal fit-up
 Basic bearing number
 Conrad type
 Shield on both sides
 Lubricant Aero-shell
 #11 MIL-G-3278

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MFR: FAG BEARINGS CORPORATION

CODE 43991

Prefix	Suffix	Definition
A		Ball bearing, single-row, angular contact type with one relieved inner ring shoulder and an outer ring guided retainer.
	A	Internal design modification.
	A	Ball bearing, single-row, angular contact 30 degrees.
B		Ball bearing, single-row, angular contact type with one relieved outer ring shoulder and an inner ring guided retainer.
	B	Internal design modification.
	B	Ball bearing, single-row, angular contact 40 degrees.
BO		Magneto type ball bearing.
	C	Internal design modification.
	C1	Ball bearing, single-row angular contact 15 degrees.
	C2	
	C3	Internal radial clearance designations conforming to AFBMA Standards, section No. 3.
	C4	
	C5	
	DA	Ball bearing, double-row with split inner ring.
	(DB)	Ball bearing suitable for duplex mounting "back-to-back".
	(DF)	Ball bearing suitable for duplex mounting "face-to-face".
DL		Ball thrust bearing, single-row, single direction, grooved race surface, metric light series.
DM		Ball thrust bearing, single-row, single direction, grooved race surface, metric medium series.
	(DR)	Cylindrical roller bearing drop roller retainer design.
	(DT)	Ball bearing suitable for duplex mounting in tandem.
E		Magneto type ball bearing.
EA		Magneto type ball bearing.
	E	Ball or roller bearing with increased load capacity design.
	E	Ball bearing, single-row, angular contact 25 degrees.
EW		Ball thrust bearing, single-row, single direction, grooved race surface, extra light inch series.
	F	Machined steel retainer, rolling element guided.
	FA	Machine steel retainer, outer ring guided.
	FB	Machined steel retainer, inner ring guided.
	F3	Noise test specification.
	G	Noise test specification.
	H	Machined forged bronze retainer, rolling element guided.
	HA	Machined forged bronze retainer, outer ring guided.
	HB	Machined forged bronze retainer, inner ring guided.
	HL	Spherical roller bearing with increased load capacity.
	HS	One seal, polyacrylic material.
	2HS	Two seals, polyacrylic material.
HW		Ball thrust bearing, single-row, single direction, grooved race surface, heavy inch series.
	J	Stamped metal retainer, rolling element guided.
K		Aircraft control ball bearing, single-row, radial.
	K	Bearing with tapered bore, taper 1:12.
	K30	Bearing with tapered bore, taper 1:30.
KP		Aircraft control ball bearing, single-row, radial.
KS		Aircraft control ball bearing, single-row, self-aligning.
KSP		Aircraft control ball bearing, single-row, self-aligning.
L		Magneto type ball bearing.
	L	Machined aluminum retainer, rolling element guided.
	LA	Machined aluminum retainer, outer ring guided.
	LB	Machined aluminum retainer, inner ring guided.
	L10	Shell Alvania No. 2 grease, MIL-G-18709.
	L12	Chevron SRI No. 2 grease, MIL-G-3545.
	L14	Shell Aeroshell 16 grease, MIL-G-25760.
	L15	Shell Aeroshell 7 grease, MIL-G-23827.
	L16	American Supermil ASU 31052, MIL-G-25013.
	L19	Mobil Oil, Mobil 28 grease, MIL-G-81322.
	L904	Diester instrument oil, MIL-L-6085.
	L907	Diester instrument oil, MIL-L-6085.
	L909	Petroleum oil, MIL-L-7870A.
	L910	Petroleum oil, MIL-L-644A.
	L914	Petroleum oil, MIL-L-3503.
	L923	Silicone fluid.

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MFR: FAG BEARINGS CORPORATION (con.)

CODE 43991

Prefix	Suffix	Definitions
IS		Ball bearing, single-row, light inch series.
M		Magneto type ball bearing.
	M	Machined brass retainer, rolling element guided.
	MA	Machined brass retainer, outer ring guided.
	MB	Machined brass retainer, inner ring guided.
	MP	Machined brass retainer, window type.
MS		Ball bearing, single-row, medium inch series.
MW		Ball thrust bearing, single-row, single direction, grooved race surface, medium inch series.
N		Cylindrical roller bearing, single-row, two lip inner ring, cylindrical outer ring.
	N	Circumferential groove on bearing O.D. for snap ring.
NJ		Cylindrical roller bearing, single-row, two lip outer ring, one lip inner ring.
NN		Cylindrical roller bearing, double-row, three lip inner ring, cylindrical outer ring, spindle bearing.
NNU		Cylindrical roller bearing, double-row, three lip inner ring, cylindrical inner ring, spindle bearing.
NU		Cylindrical roller bearing, single-row, two lip outer ring, cylindrical inner ring.
NUP		Cylindrical roller bearing, single-row, two lip outer ring, two lip inner ring with one lip separable.
	NR	Circumferential groove on bearing o.d. and snap ring.
	P4	
	P5	
	P6	ISO Tolerance classification.
QJ		Ball bearing, single-row, four-point design with split inner ring.
R		Ball bearing, single-row, extra small and extra light inch series.
RLS		Cylindrical roller bearing, single-row, two lip inner ring, cylindrical outer ring, light inch series.
RMS		Cylindrical roller bearing, single-row, two lip inner ring, cylindrical outer ring, medium inch series.
	RS	One seal, Buna-N rubber.
	2RS	Two seals, Buna-N rubber.
	RSR	One seal, Buna-N rubber, radial type.
	2RSR	Two seal, Buna-N rubber, radial type.
RY		Traction motor bearing specification.
	(RY)	Traction motor bearing specification.
S		Ball bearing, single-row, extra wide series.
	S	Spherical roller bearing with circumferential lubricating groove in O.D. and holes in O.R..
	(S...)	(Folled by 3 digits or one letter and two digits) special specification covering selected and/or other characteristics.
	SG	Noise tested specification.
	SP	Super precision specification.
	SO	Stabilized for operating temperatures up to 300°F.
	SOO	Stabilized for operating temperatures up to 250°F.
	S1	Stabilized for operating temperatures up to 390°F.
	S2	Stabilized for operating temperatures up to 480°F.
	S3	Stabilized for operating temperatures up to 570°F.
	S4	Stabilized for operating temperatures up to 660°F.
	T	Textile laminated phenolic retainer, rolling element guided.
	TA	Textile laminated phenolic retainer, outer ring guided.
	TR	Textile laminated phenolic retainer, inner ring guided.
	TH	Textile laminated phenolic retainer, snap type.
	TN	Plastic retainer, rolling element guided.
	TNH	Plastic retainer, snap type.
	TS	One seal, fiber glass filled Teflon material.
	2TS	Two seals, fiber glass filled Teflon material.
	T3	ABEC-3 and RBEC-3 tolerances.
	T5	ABEC-5 and RBEC-5 tolerances.
	T7	ABEC-7 and RBEC-7 tolerances.
	T9	ABEC-9 and RBEC-9 tolerances.

MIL-HDBK-203C
 5 January 1977

MFR: FAG BEARINGS CORPORATION (con.)

CODE 43991

Prefix	Suffix	Definition
	UA	
	UL	Universal mounting and preload.
	UM	Specifications for angular contact.
	UO	Ball bearings.
	US	
	V	Full complement, retainerless bearing.
	VS	One seal, Viton material.
	2VS	Two seals, Viton material.
W		Ball thrust bearing, single-row, single direction, grooved race surface, light inch series.
X		Special bearings.
XA		
XB		
XF		
XH		
XJ		
XK		
XLS		Ball bearing, single-row, extra light series.
	(X)	Bearing with increased seal torque.
XW		Ball thrust bearing, single-row, single direction, grooved race surface, extra light inch series.
	Y	Pressed brass retainer, rolling element guided.
	(Y)	Bearing with reduced seal torque.
	YP	Pressed brass retainer; window type.
	Z	One metal shield.
	2Z	Two metal shields.
	ZR	One metal shield, radial type.
	2ZR	Two metal shields, radial type.

EXAMPLES:

6203.2RS.T5.C3.L19

- 6203 basic bearing series and size designation.
- .2RS two molded rubber seals.
- .T5 ABEC-5 tolerance class.
- .C3 AFBMA internal radial clearance.
- .L19 Mobil 28 grease, MIL-G-81322.

NU205.M.T5.S1

- NU cylindrical roller bearing, single-row, two lipped outer ring, cylindrical inner ring.
- 205 basic bearing series and size designation.
- .M machined brass retainer, roller guided.
- .T5 RBEC-5 tolerance class.
- .S1 stabilized for operating temperatures up to 390°F.

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MFR: FAG BEARINGS LIMITED

CODE 36069

IDENTIFICATION SYMBOLS

S - AISI 440 C vacuum melt stainless steel standardly supplied for precision instrument bearings
 SAE 52100 (no symbol)

M - Metric size
 - Inch size (no symbol)
 T - Thin section and torque tube

R - Radial retainer, deep groove
 G - Full ball - with filling slots
 J - Full ball - with stepped shoulder
 A - Angular contact - non-separable
 U - Angular contact - outer ring separable
 L - Angular contact - inner ring separable

F - Flanged outer ring
 E - Extended inner ring
 T - Tapered O.D.

Dimensions according to bore and O.D.

R	FE	2	ZZ	X1	T5	C35	G36-6	X12	
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SAE 52100 rings and balls, radial retainer, deep groove type, flanged outer ring, extended inner ring, 1/8-inch bore X 3/8-inch O.D. X 5/32-inch wide outer ring, 3/16-inch wide inner ring, double shielded, two-piece ribbon retainer, to ABEC-5P tolerances, radial play 0.0003 inch to 0.0005 inch, MIL-G-15793 grease 6 mgm, bore tolerance $+0.0000$ inch, O.D. tolerance -0.0001 inch.

S	R	0816	TS	K2	T3	C26	G31		
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AISI 440C stainless steel rings and balls, radial retainer, deep groove type, 1/8-inch bore X 1/4-inch O.D. X 0.1094 inch wide, single Teflon seal, 1-piece snap retainer, ABEC-3 tolerances, radial play 0.0002 inch to 0.0006 inch, MIL-G-3278A grease.

L	4	X3	T9	OV-50	Y	V	DB
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SAE 52100 rings and balls, angular contact, inner ring separable type, 1/4-inch bore X 5/8-inch O.D. X 0.1960-inch wide, to ABEC-9P tolerances, nonmetallic retainer, impregnated with oil, bore and O.D. calibrated to 0.0005 inch increments, torque tested, duplex back-to-back matched pair.

PREFIXES

EXAMPLES

CODE 36069

MFR: FAG BEARINGS LIMITED (CON.)

IDENTIFICATION SYMBOLS									
One shield Two shields One seal (rubber) Two seals (rubber) One seal (Teflon) Two seals (Teflon) One shield and one seal	Z ZZ RS 2RS TS 2TS ZRS or ZTS								SHIELDS AND SEALS
2 piece ribbon, metal 1 piece snap, metal Machined non-metallic 2 piece loose clasp, metal Spring type Nylon type	K1 K2 K3 K4 K5 K6								RETAINER OR CAGE
ABEC-3 ABEC-5P or ABEC-5T ABEC-7P or ABEC-7T ABEC-9P Finer than ABEC-9P	T3 T5 T7 T9 TX								DIMENSIONAL ACCURACIES
C Followed by two numbers giving tolerance range in 0.0001 inch (C25 standard)						C---			INTERNAL RADIAL CLEARANCE
No lubricant, bearing delivered dry Oil followed by code type and quantity Grease followed by code type and quantity Grease plated followed by code type Oil plated followed by code type Cage oil impregnated followed by code type							N O-- G-- GP-- OP-- OV--		LUBRICATION
Bore and O.D. calibrated to increments of 0.0001 inch Bore and O.D. calibrated to increments of 0.00005 inch							X Y		CLASSIFICATION OF BORE AND O.D.
Meets FAG standard torque test specification V followed by two numbers is starting torque in mg-mm divided by 100 W followed by two numbers is average running torque in mg-mm divided by 100							V V-- W--		TORQUE
Back-to-back Face-to-face Tandem Universal for DB, DF or DT								DB- DF- DT- D-	DUPLEX OR MACHED PAIRS
PS followed by number is specific FAG internal production specification, involving deviations from standard									PS---
PS followed by number is specific FAG internal production specification, involving deviations from standard									PS---

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MFR: THE FEDERAL BEARINGS CO., INC.

CODE 21760

Prefix	Suffix	Definitions
A		Contact lines on double-row converge on outside.
	A	Deviation from standard design.
B		Pillow block (bearing only).
	B	External self-aligning (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 of 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).
F000		Front wheel series.
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).
	A	Lubricant code Anderol L-793.
	B	Lubricant code Texaco 1692, low temperature oil.
	C	Lubricant code, special lubricant which does not have a specific code letter.
	CG	Snap ring groove.
	CT	Clutch throwout type.
	CTH	CT type with nipple for grease fitting.
	CTM	CT type with steel shell.
	CTN	CT type with oil hole.
	CTQ	CT type with steel shell.
	CTR	CT type with nipple for grease fitting.
	D	Lubricant code, Dow Corning 44, MIL-L-15719.
	E	Lubricant code, Shell, Aeroshell 7A.
	E	Single plastic seal.
	EE	Double plastic seal.
	F	Single steel shield.
FB		Magneto type.
	FE	Shielded both sides. One side steel shield; opposite side plastic seal.
	FF	Double steel shield.
	FG	Snap ring and shield on the same side of bearing.
	FR	Shielded both sides - one side steel - opposite side Buna-N seal.
FS		Special design bearing.
	G	Lubricant code, Texas Co. "No. 3007", MIL-L-3545.
	GF	Snap ring - single shield at opposite side of bearing.
	H	Lubricant code Andok C.
	HH	Fairprene Buna-N contact seal.
I		Self-aligning, double-row, radial type with extended inner ring.
	J	Lubricant code, Socony BRB lifetime grease.
	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.

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MFR: THE FEDERAL BEARINGS CO., INC. (con.)

CODE 21760

Prefix	Suffix	Definitions
	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).
	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).
	MGFF	Snap ring groove on filling slot side, double shielded (standard).
	MWI	Filling slot type with extended inner ring.
PB		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 (non-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.
SOC		Extended inner ring with collar.
	SS	Stainless steel.
U		Single bearing universally ground.
	X	Adapter type.
XLS		Extra light inch series.
	XY	Adapter type with sleeve.
	Y	Adapter sleeve.
	J	Molded synthetic rubber with steel insert, contact seal.
	JJ	Double molded synthetic rubber seal.
	K	Lubricant code, Gulf precision #2 grease.
	L	Lubricant code, Texas Co. Low temperature 2346 grease, MIL-G-23827A.
LS		Light series - inch dimensions.
	M	Lubricant code, Beacon 325, MIL-G-3278.
	M	Single row - maximum capacity - filling slot.
MS		Medium series - inch dimensions.
MWI		Wide inner ring.
	N	Lubricant code, Shell Alvania #2.
	N	Narrow inner ring.
	N	Double-row - light series - narrow width.
PB		Ball bearing and pillow block housing assembly.
	P	Lubricant Code, Texas Co. "Regal AFB #2", MIL-L-7711.
PF		Double-row fan and pump shaft bearings.
PT		Carbon bearing clutch release.
	Q	Lubricant code, Texas Co. All temperature 1992 grease, MIL-G-10924.
	R	Retainer.
	R	Single fairprene Buna-N seal.
	RR	Double fairprene Buna-N seal.
RW		Automotive rear wheel type.
S		Extra small, inch dimensions, full type.
	S	Lubricant code, N. Y. and N. J. "S58".
	SA	Internal self-aligning.
SOC		Extended inner ring, locking collar, light series.
SOC		Extended inner ring, locking collar, medium series.
	H	Wide outer ring.
	W	Standard slush.
	X	Adapter bearing.
	X	Adapter bearing.
	X5	Special width, integrated felt seal.
XLS		Extra light series - inch dimensions.
	XY	Adapter type bearing with sleeve.
	Y	Adapter sleeve.
	Z	Lubricant code, Anderson L-245X, MIL-L-6085A.

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MFR: THE FEDERAL BEARINGS CO., INC. (con.)

CODE 21760

Prefix	Suffix	Definition
	1	Lubricant code, Standard grease M24.
	1	Standard fit.
	1	ABEC-1 tolerance.
	2	Tight fit.
L		Lubricant code, Texas Co. Low temperature 2346 grease, MIL-G-23827A.
	3	Loose fit.
	3	ABEC-3 tolerances.
	5	ABEC-5 tolerances.
	7	ABEC-7 tolerances.

How to read FEDERAL ball bearing numbers:

EXAMPLE:

1316MFF 1H1
 1316 M FF 1H1
 Basic bearing number
 Single-row - maximum capacity type
 Double steel shields
 1 - Standard fit-up
 H - Andok C grease
 1 - ABEC-1 tolerances

EXAMPLE:

7007X5 1M1
 7007 X5 1M1
 Basic bearing number
 Special width, integrated felt seal
 1 - Standard fit-up
 M - Low temperature grease, Beacon 325, MIL-G-3278
 1 - ABEC-1 tolerances

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4FR: GREEN BALL BEARING CO.

CODE 72898

Prefix	Suffix	Definition
CB		Clutch bearing.
CB	C	Clutch bearing and carrier assembly.
	DB	Pair of bearings ground for duplex mounting back-to-back.
	DF	Pair of bearings ground for duplex mounting face-to-face.
	DT	Pair of bearings ground for duplex mounting in tandem.
G		Special bearing (e.g. G-5111).
	L	Loose end play, radial type ball bearing.
	L1	Loose fit-up, single-row, radial.
	L	Light preload, angular contact type ball bearing.
	L2	Extra loose fit-up, single-row, radial.
	LR	Loose radial play, annular ball bearing.
	MR	Medium radial play, annular ball bearing.
	N	Extra loose end play, radial type annular ball bearing.
PB		Direct mounted ball bearing pillow block.
	R	Retaining ring for rear wheel bearing.
	S	Special end play, radial type annular ball bearing.
RW		Rear wheel bearing.
SA		Self aligning pillow block.
	T	Tight end play, radial type annular ball bearing.
	T1	Tight fit-up, single-row, radial.
	T	Heavy preload, angular contact type annular ball bearing.
TR		Precision trolley wheel (e.g. TR-7).
WC		Wide cup type sealed annular ball bearing.
	X	Standard end play, radial type annular ball bearing.
	X	Medium preload, angular contact type annular ball bearing.
	XR	Standard radial play, annular ball bearing.
	1	ABEC-1 tolerances.
	3	ABEC-3 tolerances.
4		Snap ring.
	5	ABEC-5 tolerances.
7		1 shield.
77		2 shields.
	7	ABEC-7 tolerances.
8		One seal.
88		Two seals.
9		One synthetic contact seal.
99		Two synthetic contact seals.
9090		Front wheel bearing, complete.
9095		Inner ring (cone) only, front wheel bearing.
9096		Outer ring (cup) only, front wheel bearing.
9097		Retainer and ball assembly only, front wheel bearing.

How to read GREEN ball bearing numbers:

EXAMPLE:
 77038X1

77 038 X 1

2 shields

Basic bearing number

Standard end play or internal fit-up

ABEC-1 tolerance

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MFR: HOOVER - NSK BEARINGS, INC.

CODE 29337

Prefix	Suffix	Definition
	A	Internal redesign.
	A	30 degree contact angle, angular contact ball bearings.
	AE3	ABEC-3 tolerance.
	AE5	ABEC-5 tolerance.
	+AH	Withdrawal or removal sleeve.
	B	Internal redesign.
	B	40 degree contact angle, angular contact ball bearings.
	C	Internal redesign.
	C	15 degree contact angle, angular contact ball bearings.
	C2	Tight fit, AFBMA class 2.
	C3	Loose fit, AFBMA class 3.
	C4	Extra loose fit, AFBMA class 4.
	CA	Spherical roller bearing.
	CC	Standard, non-interchangeable fit, cylindrical roller bearings.
	CC2	Less than standard non-interchangeable fit, cylindrical bearings.
	CC3	Greater than CC fit, cylindrical roller bearings.
	CC4	Greater than CC3 fit, cylindrical roller bearings.
	CD	Spherical roller bearing.
	CE	Electric motor quality bearing and fit.
	CHS	Water pump bearing with slinger ring.
	CM	Electric motor quality bearing and fit.
	CT	Electric motor quality bearing and fit.
	D	Steep contact angle, tapered roller bearing.
	DB	Duplex pair, back-to-back mounting.
	DDU	Two rubber contact seals.
	DF	Duplex pair, face-to-face mounting.
	DH	Water pump bearing, dulited and haned parts.
	DT	Duplex pair, tandem mounting.
	DU	Single rubber contact seal.
	E	Bearing with slot or keyway.
	E4	Outer ring relubrication feature, spherical bearings.
	F	Single shield, double-row ball bearings.
	FF	Two shields, double-row ball bearings.
	G	Snap ring on bearing.
	GNR	Snap ring groove on bearing, no snap ring.
	GS	Snap ring on same side of bearing as shield.
H		Heavy series cup or cone, tapered roller bearings.
	+H	Adapter sleeve.
HH		Extra heavy series cup or cone, tapered roller bearings.
	+HJ	Stabilizing ring, cylindrical roller bearings.
HM		Medium-heavy series cup or cone, tapered roller bearings.
	J	Pressed steel retainer, two piece ribbon type.
	K	Tapered bore bearing 1:12.
	K30	Tapered bore bearing 1:30.
	+K	Outer ring spacer, tapered roller bearings.
	+KL	Inner and outer ring spacer, tapered roller bearings.
L		Light series cup or cone, tapered roller bearings.
	+L	Inner ring spacer, tapered roller bearings.
LL		Extra light series cup or cone, tapered roller bearings.
LM		Medium-light series cup or cone, tapered roller bearings.
M		Medium series cup or cone, tapered roller bearings.
		Max-type, filling slot ball bearings.
	M	Medium fit, AFBMA class 0.
	M	Machined bronze retainer.
MS		Shield and loading slot on same side, ball bearings.
N		Cylindrical bearing, double flanged inner, open outer.
	N	Snap ring groove in outer ring.
NF		Cylindrical bearing, double flanged inner, single flanged outer.
NH		Cylindrical bearing, two-piece inner, double flanged outer.
NJ		Cylindrical bearing, single flanged inner, double flanged outer.
NN		Cylindrical bearing, double-row, flanged inner, open outer.
	NR	Snap ring in outer ring.
NU		Cylindrical bearing, open inner, double flanged outer.
	OS2	Water pump bearing, shaft 0.002 inch oversize.
	OS3	Water pump bearing, shaft 0.003 inch oversize.

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MFR: HOOVER - NSK BEARINGS, INC. (con.)

CODE 29337

Prefix	Suffix	Definition
R		Inch dimension series ball bearings.
RA		Power transmission ball bearings, prelubricated.
RAG		Power transmission ball bearings, relubricateable.
	RR	O.D. riding trash guard rubber contact seals.
	RS	Face riding rubber contact seals.
S		Cartridge bearing series.
SB		Power transmission bearing, wide inner, prelubricated.
SBG		Power transmission bearing, wide inner, relubricateable.
SE		Eccentric locking collar for power transmission.
SF		Four-bolt flange unit, standard, relubricateable.
SFC		Four-bolt flange unit, RA unit, prelubricated.
SFT		Two-bolt flange unit, standard, relubricateable.
SFTC		Two-bolt flange unit, RA unit, prelubricated.
SP		Standard height pillow block, relubricateable.
SPC		Standard height pillow block, RA unit, prelubricated.
SPH		Revised height pillow block, relubricateable.
SPHC		Revised height pillow block, RA unit, prelubricated.
STU		Take-up unit block, relubricateable.
STUC		Take-up unit block, RA unit, prelubricated.
	T	Tight fit, AFBMA class 2.
	TT	Face riding trash guard rubber contact seal.
	V	Two face riding trash guard rubber contact seals.
	VV	Labyrinth rubber seal.
	W	Two labyrinth rubber seals.
WC		Pressed steel retainer, one piece type.
X		Felt seal series bearings, wide outer ring.
	X	Special bearing series.
	XL	Redesigned boundary dimension of less than ± 1 mm.
	XT	Extra loose fit, AFBMA class 3.
	Y	Extra tight fit, less than AFBMA class 2.
	Z	Pressed brass retainer, two piece, ribbon type.
	ZZ	Single shield.
7		Two shields.
77		Single shield.
8		Two shields.
87		Felt seal.
88		One felt seal, one shield.
89		Two felt seals.
9		One felt seal, one Teflon seal.
99		Teflon seals.
	-008	Two Teflon seals.
	-8	Bore size, 1/2 inch diameter.
	-010	Bore size, 1/2 inch diameter.
	-12	Bore size, 5/8 inch diameter.
	-13M	Bore size, 3/4 inch diameter.
	-14	Bore size, 13 mm diameter.
	-100	Bore size, 7/8 inch diameter.
	-107	Bore size, 1 inch diameter.
	-625	Bore size, 1-7/16 inch diameter.
		Bore size, 0.6250 inch diameter.
<u>Engineering specifications system designations</u> (Three-four digit system)		
ES1		Hand spin test, low torque.
ES3		100 percent speed test, low noise level.
ES5		Low noise level.
ES6		Certified quality control.
ES7		Special process, special carton marking.
ES8		Shield clearance 0.003 inch, spec. tolerance.
ES9		(MIL-B-17931A), amendment 1, low noise level.
ES11		Special grease volume.
ES12		Special carton marking.
ES13		Special corner radius.
ES15		Special end play.

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MFR: HOOVER - NSK BEARINGS, INC. (con.)

CODE 29337

Prefix	Suffix	Definition
	ES16	Special processing.
	ES17	Special cleaning.
	ES18	Radial play limits special.
	ES19	Special cleaning, lubrication.
	ES20	Radial play, gaging loads, special.
	ES21	Heat stab. for 325°F operation.
	ES22	XT radial play, special.
	ES24	(MIL-B-17931A), amendment 2, low noise level.
	ES25	High-speed test.
	ES26	Dulite processed.
	ES27	End play and tilt limits, special.
	ES28	Dulite processed.
	ES29	Special shield marking.
	ES30	Quality audit, special.
	ES31	Torque limits, special.
	ES32	Special inspection.
	ES33	Low noise level.
	ES34	Ultrasonic cleaning.
	ES35	Flushness tolerance special.
	ES36	Special identification.
	ES37	Dulite shield.
	ES38	Special end play.
	ES39	Electronic noise testing.
	ES40	Heat stabilized, special.
	ES41	Stabilization for 375°F operation.
	ES42	"HS 2" marking on outer.
	ES43	Grease control, special.
	ES44	Reduced inspection limits.
	ES45	Lapped inner face.
	ES46	Oversize O.D.'s.
	ES47	Special for railroad application.
	ES48	Special O.D. tolerance.
	ES49	Shield identification, special.
	ES50	Rework identification.
	ES51	Special tolerances.
	ES52	Solvent clean parts, special.
	ES53	Special processing.
	ES54	Special for railroad applications.
	ES55	Special 77R6.
	ES56	Radial looseness check, special.
	ES57	Special O.D. corner.
	ES58	High point marking on inner ring.
	ES59	O.D. coding.
	ES60	Special greasing.
	ES61	ES-41 and special greasing.
	ES62	Shield or seal assembly, special.
	ES63	Special 7038.
	ES65	Special marking instructions.
	ES66	Special identification.
	ES67	Special grease and quantity.
	ES68	Special grease quantity.
	ES70	Special marking.
	ES71	Special width tolerance.
	ES72	Special lubrication.
	ES73	Special processing.
	ES74	Special ring marking.
	ES75	Bearings serial numbered.
	ES82	Relube type shields.
	ES83	Electro-galvanizing.
	ES84	Spec. internal clearance and special grease quantity.
	ES85	Special grease quantity.
	E100	Special bearings (MIL-B-17931C).
	E101	Grease quantity and Teflon seal element, special.

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MFR: HOOVER - NSK BEARINGS, INC. (con.)

CODE 29337

Prefix	Suffix	Definition
<u>Lubricant code system designations</u> (Three digit system, two letters and one number)		
AB		Andok B.
AC		Andok C.
AE		Aeroshell 15.
AF		Aeroshell 17.
AK		Andok 260.
AN		Anderol L-423 oil.
AR		Aeroshell 5.
AS		Aeroshell 7.
AT		Aeroshell 16.
AW		Aeroshell 22.
AX		Aeroshell 6.
BS		X8388A (Batco).
BT		Beacon 325.
CH		Chevron OHT.
DA		Dow Corning DC99 - No. 2.
DB		Dow Corning FS3451 - No. 2.
DE		DC41.
DF		DC44.
DH		Dow Corning 510.
DS		DC FS 1291.
DT		DC33.
DV		DC FS 1292.
FM		Fiske lubriplate - multi-lube A.
FT		Fiske lubriplate 210.
HP		Humble Oil Univis P38.
HX		Humble Oil Unirex No. 2.
KH		Keystone 89H.
KY		DuPont, Krytox 240AC.
LU		Lubriko M24.
MT		Mobil-Temp #1 Socony Vacuum.
NF		Non-Fluid Oil Cp. F924.
NG		Non-Fluid Oil Co. G-60.
NR		Nox - Rust 509.
NS		Non-Fluid Oil Co. S-59.
NW		Non-Fluid Oil Co. W-56.
PE		Petrolatum.
RY		Rykon #2.
SA		Shell Alvania #2.
SB		Shell XSG6409.
SC		Shell Cyprina #3.
SD		Shell Darina #2.
SE		Shell Darina EP.
SF		Shell Darina #1.
SG		Standard grease code.
SL		Shell Alvania #3.
SQ		Stanoil 15.
SP		Shell Alvania #2 EP.
SW		Southwest Grease and Oil Co., Code 5682.
SX		Shell Darina AX.
TB		Texaco Premium BRB.
TC		Texas Capella B.
TE		Texas EP 2324 hi-temp.
TH		Texas 1999 hi-temp.
TL		Ashland Oil Tectyl 900.
TM		Templube 124.
TR		Texas Regal Starfak AFB-2.
TU		Texas 1996 uni-temp 500.
TX		Texas 1692.
UB		Supermil grease no. 72832.
UC		Supermil grease no. 31052.
UF		ASU 40.
UT		ASU 100.
UN		Unoba #1 Union Oil.
US		ASU 06752 (American Oil).

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MFR: HOOVER - NSK BEARINGS, INC. (con.)

CODE 29337

Prefix	Suffix	Definition
	VA	Chevron BRB2.
	VS	Chevron SRI.
	WN	Windsor L245X.
	ZZ	Grease specification is part of ES number.
<u>Number suffix to letters, grease code</u>		
	1	1/8 full.
	2	1/4 full.
	3	3/8 full.
	4	1/2 full.
	5	5/8 full.
	6	3/4 full.
	7	7/8 full.
	8	100 percent full.
	9	Dip.

Complete grease code is three digits as AC4 Andok C - 1/2 full.

EXAMPLE: 77206M1AC4ES41
 77 - Two shields
 206 - Basic number.
 M - Medium fit, AFBMA class 0.
 1 - ABEC-1 tolerance.
 AC4 - Andok C, 1/2 full.
 ES41 - Stabilized heat treatment.

EXAMPLE: 6206 DDUYL3BT3ES17
 6206 - Basic number.
 DDU - Two rubber contact seals.
 Y - Pressed brass retainer.
 L - Loose fit, AFBMA Class 3.
 3 - ABEC-3 tolerance.
 BT3 - Beacon 325, 3/8 full.
 ES17 - Special cleaning.

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FROM: INDUSTRIAL TECTONICS, INC. BEARING DIVISION

CODE 96577

Prefix	Suffix	Definition
	FD	Machined and hardened M2 high speed steel retainer, riveted, inner ring centered.
	HA	Machined and hardened M2 high speed steel retainer, one piece inner ring centered.
	3	ABEC-3 tolerances.
	5	ABEC-5 tolerances.
	7	ABEC-7 tolerances.
	-62	M2 high speed steel rings with M10 CEV high speed steel balls.
	-64	M10 high speed steel rings with M10 CEV high speed steel balls.

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MFR: INTERNATIONAL HARVESTER COMPANY

CODE 31007

WP (IH) BALL BEARING NUMBERING SYSTEM

Standard WP ball bearings are manufactured in types, styles, and sizes corresponding to those established by the ball bearing industry and conforming to recognized standards established by the Anti-Friction Bearing Manufacturers' Association (AFBMA). Special WP ball bearings generally deviate from these standards in some feature or dimension.

WP ball bearings are identified by code symbols arranged in four sections, as follows:

SECTION 1 - Types and styles covered by prefix letters.

The code for type is:

- | | |
|---|--|
| A - Angular contact. | H - Counterbore assembly (self-contained). |
| C - Nonloading groove assembly (Conrad or limited). | I - Inch dimension. |
| CA - Clutch release - angular contact ball bearing. | K - Cartridge assembly. |
| D - Double-row (the basic is angular contact). | DK - Double row cartridge assembly. |
| F - Full complement of balls (no separator). | FK - Flanged cartridge assembly. |
| | HK - Hanger cartridge assembly. |
| | L - Loading groove assembly (maximum type) |
| | M - Magneto (metric - separable). |
| | X - Experimental. |

The code for style is:

- G - Snap ring in outer race.
- GP - Snap ring on side opposite shield.
- GJ - Snap ring on side opposite seal.
- J - Felt seal on one side.
- JJ - Felt seals on both sides.
- K - Cartridge seal (2 or 3 lips) on one side.
- KK - Cartridge seals on both sides.
- P - Shield plate on one side.
- PJ - Shield plate on one side and felt seal on the other.
- PP - Shield plates on both sides.
- PR - Shield plate on one side - synthetic seal on the other.
- R - Synthetic seal.
- RR - Synthetic seals on both sides.
- S - Spherical O.D.
- T - Single lip land-riding seal on one side.
- TT - Single lip land-riding seals on both sides.
- W - Double lip land-riding seal on one side.
- WW - Double lip land-riding seals on both sides.

SECTION 2 - Basic series and bore size covered by numbers.

The code for basic series is:

- 1 - Extra light. 2 - Light. 3 - Medium. 4 - Heavy.

The code for basic bore size is:

Basic bore size will be designated by integers corresponding to the diameter in millimeters for metric bearings or sixteenths of an inch for inch series bearings.

SECTION 3 - Variations and deviations from standard specifications covered by suffix letters or numerals or both.

The code for specification deviation is:

- B - Special bore.
- C - Snap ring on shield side.
- D - Special outside diameter.
- F - Flush faces (applies to radials and angular contacts).
- FF - Flushness suitable for face-to-face or multiple mounting of radial and angular contact ball bearings.
- FJ - Flushness suitable for face-to-back mounting of angular contact ball bearings.
- H - Lubrication hole.
- JJ - Flushness suitable for back-to-back mounting of angular contacts.
- N - Snap ring groove - no snap ring.
- T - Screw thread on shaft or inner ring.
- V - Tapered.
- W - Special bearing width.

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CODE 31107

- WI - Special width of inner race ring only.
- WO - Special width of outer race ring only.
- Z - Variation in internal construction.
- 1, 2, 3, 4, 5, etc. - Other variations and special features.

SECTION 4 - Grading specifications.

The code for grading specifications shall consist of a minimum of four digits, letters or numerals, arranged in the following sequence:

	Internal fit-up	External tolerances	Internal tolerances	Lubrication	Miscellaneous
Digit position	1	2	3	4	5, 6, etc.
Grading specifications	0	0	0	B	

(Standard specifications shown for reference - not required for standard grade identification).

The code for internal fit-up is:

- O - Standard.
- L - Loose.
- M - Extra loose.
- T - Tight.
- U - Extra tight.
- S - Special.

The code for external tolerance is:

- O - Standard - bore, width, and O.D. tolerances in accordance with ABEC-1.
- B - Bore tolerance only reduced from standard.
- 3 - Standard - bore, width, and O.D. tolerances in accordance with ABEC-3.
- 5 - Standard - bore, width, and O.D. tolerances in accordance with ABEC-5.
- S - Special - bore, width, and O.D. tolerances.

The code for internal tolerances is:

- O - Standard running accuracy of inner and outer race rings in accordance with ABEC-1.
- 3 - Standard running accuracy of inner and outer race rings in accordance with ABEC-3.
- 5 - Standard running accuracy of inner and outer race rings in accordance with ABEC-5.
- S - Special running accuracy of inner and outer race rings.

The code for lubrication is:

- A - Cold dip rust preventative - Dearborn Chemical Co. - NO-OX-ID-570.
- B - Hot dip rust preventative - Dearborn Chemical Co. - NO-OX-ID-580.
- C - High-temperature grease - Master Lubricants Co. - Lubriko M-24.
- D - High-temperature grease - Shell Oil Co. - Darina No. 2.
- E - Medium high-temperature grease - Shell Oil Co. - Alvania No. 3.
- H - High-temperature grease - Std. Oil of New Jersey - Andok C.
- J - High-temperature grease - Std. Oil of New Jersey - Andok 260.
- R - High-temperature grease - Std. Oil of Indiana - Rykon No. 3 B.

Completely enclosed ball bearings, such as double shielded, double sealed, and single sealed styles, shall be regularly prelubricated with "H" grease or equivalent, unless otherwise specified.

The codes for miscellaneous specifications are:

- 1 - 10 percent to 19 percent complement of lubricant
- 2 - 20 percent to 29 percent complement of lubricant
- 3 - 30 percent to 39 percent complement of lubricant
- 4 - 40 percent to 49 percent complement of lubricant
- 5 - 50 percent to 59 percent complement of lubricant
- 6 - 60 percent to 69 percent complement of lubricant
- 7 - 70 percent to 79 percent complement of lubricant
- 8 - 80 percent to 89 percent complement of lubricant
- 9 - 90 percent to 100 percent complement of lubricant

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If lubrication is not required (other than rust preventative) no code is required.

Q - Running quality better than standard.

When grading specification code is not designated, bearings are standard grade.

Schematic representation of numbering system with example:

Bearing number			Grade specification
Section 1	Section 2	Section 3	Section 4
Style and type	Basic series and bore No.	Special deviations	Grading specifications
PC	230	W-1	OBOH6Q

Interpretation of example PC-230-W-1 (OBOH6Q)

PC-230-W-1 identifies ball bearing as single shielded, Conrad or limited type, light series, 30 millimeter bore, special width. (The digit 1 indicates that a similar special width bearing is being manufactured of the same basic size and type.)

(OBOH6Q) indicates grade as conforming to standard internal fit-up, reduced bore tolerance, standard running accuracy, prelubricated with high-temperature grease, and running quality better than standard.

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3: KEENE CORP. KAYDON BEARING DIVISION

CODE 32828

Kaydon Reali-Slim bearings are marked for complete identification with coded numeric and alphabetic characters. Bearings which cannot be identified by code are marked only with a five digit number.

CODED BEARINGS ARE MARKED AS FOLLOWS:

Eight characters

. Radial contact (type C) and four-point contact (type X) bearings, of all precision classes, having standard catalog internal clearance.

. Single angular contact (type A) bearings of all precision classes.

Nine characters

. Radial contact (type C) and four-point contact (type X) bearings, of all precision classes, having non-standard internal clearance or preload.

Ten characters

. Duplexed angular contact (type A) bearings of all precision classes.

Position	1	2	3	4	5	6	7	8	9	10
Nomenclature	Material	Series	Size		Type	Separator	Precision	Internal fit		
Typical part no.	K	G	1	2	O	B	H	5	V	J

POSITION 1 - MATERIAL

POSITION 2 - SERIES

	Races, balls	Seals, shields		Radial thickness	Width		Radial thickness	Width
C	CEVR 52100 steel with	No seals or shields	A	0.187	x 0.187	K	0.500	x 0.578
D	CDVD 52100 steel with	One shield - phenolic laminate	or B	.250	x .250	L	.625	x .727
E	CDVD 52100 steel with	Two shields - phenolic laminate	C	.312	x .312	M	.750	x .875
F	CDVD 52100 steel with	One seal - Buna-N bonded to phenolic laminate	D	.375	x .375	N	1.000	x 1.187
G	CDVD 52100 steel with	Two seals - Buna-N bonded to phenolic laminate	E	.500	x .500	S	*0.250	x 0.312
H	CDVD 52100 steel with	One seal - molded Buna-N steel reinforced	F	.625	x .625	or T	.250	x .375
J	CDVD 52100 steel with	Two seals - molded Buna-N steel reinforced	G	.750	x .750	U	.312	x .437
K	CDVD 52100 steel with	No seals or shields	H	1.000	x 1.000	V	.375	x .500
M	M-50 steel	No seals or shields	or I	*0.187	x 0.250	W	.500	x .656
S	440C stainless steel with	No seals or shields	J	.250	x .312	X	.625	x .828
Z	Other			.312	x .375	Y	.750	x 1.000
				.375	x .437		1.000	x 1.375

*Smaller section applies when position 3 is alphabetic - see following explanation of positions 3, 4, and 5.

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MFR: KEENE CORP, KAYDON BEARING DIVISION (con.)

CODE 32828

**POSITION 3, 4 and 5 - SIZE
 (BEARING BORE)**

Numeric characters
 Nominal bearing bore in inches multiplied by ten

Alphabetic characters

- A In Position 3 in combination with A in Position 2 denotes 0.187 x 0.187 series
- B In Position 3 in combination with H in Position 2 denotes 0.187 x 0.250 series
- C In Position 3 in combination with S in Position 2 denotes 0.187 x 0.312 series

Examples

- 040 = 4.0 inch Bore
- 120 = 12.0 inch Bore
- 400 = 40.0 inch Bore
- A10 following A in Position 2 = 0.187 x 0.187 series with 1.0 inch bore
- C15 following S in Position 2 = 0.187 x 0.312 series with 1.5 inch bore

POSITION 6 - BEARING TYPE

- A Angular contact single bearing (not ground for universal duplexing)
- B Angular contact pair - duplexed back-to-back
- C Radial contact
- F Angular contact pair - duplexed face-to-face
- T Angular contact pair - duplexed tandem
- U Angular contact single bearing - ground for universal duplexing
- X Four-point contact
- Z Other

POSITION 7 - SEPARATOR

- A Machined aluminum riveted two-piece ring for conrad assembled bearings or one-piece circular pocket ring for angular contact bearings.
- B Same as A except material is bronze.
- C Steel, segmental, "snap-over" type.
- D Phenolic laminate one-piece ring "snap-over" type.
- E Bronze, segmental "snap-over" type.
- F Full complement bearing - no separator.
- G Nylon one-piece ring, circular pocket.
- H Phenolic laminate, one-piece ring with circular pockets.
- J Nylon one-piece strip separator, circular pockets.
- K Phenolic laminate, riveted two-piece ring.
- L Nylon, one-piece ring "snap-over" type.
- M Formed wire, strip or segmental, "snap-over" type, ball in every pocket.
- N Nylon, segmental "snap-over" type.
- O Same as "A" except material is stainless steel.
- P Standard formed ring "snap-over" type (material - bronze or steel).
- R Bronze, formed ring, circular pockets.
- S Helical coil springs.

POSITION 8 - PRECISION

- 0 Kaydon precision class 1
- 3 Kaydon precision class 3
- 5 Kaydon precision class 5
- 7 Kaydon precision class 7
- 8 Other

POSITION 9 - BEARING INTERNAL FIT

- A 0.0000 to 0.0005 diametral clearance (bearing types C and X)
- B .0000 to .0010 diametral clearance (bearing types C and X)
- C .0005 to .0010 diametral clearance (bearing types C and X)
- D .0005 to .0015 diametral clearance (bearing types C and X)
- E .0010 to .0020 diametral clearance (bearing types C and X)
- F .0015 to 0.0025 diametral clearance (bearing types C and X)
- G .0020 to .0030 diametral clearance (bearing types C and X)
- H .0030 to .0040 diametral clearance (bearing types C and X)
- I .0040 to .0050 diametral clearance (bearing types C and X)
- J .0050 to .0060 diametral clearance (bearing types C and X)
- K .0.0000 to 0.0005 diametral preload (bearing types C and X)
- L .0000 to .0010 diametral preload (bearing types C and X)
- M .0005 to .0010 diametral preload (bearing types C and X)
- N .0005 to .0015 diametral preload (bearing types C and X)
- P .0010 to .0020 diametral preload (bearing types C and X)

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PR: KEENE CORP., KAYDON BEARING DIVISION (con.)

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A	Stainless steel, formed ring "snap-over" type.	R	0.0015 to 0.0025 diametral preload (bearing types C and X)
U	Stainless steel, formed ring circular pockets.	S	.0020 to .0030 diametral preload (bearing types C and X)
V	Aluminum, formed ring "snap-over" type.	T	.0030 to .0040 diametral preload (bearing types C and X)
W	Formed wire, strip or segmental, "snap-over" type.	U	.0040 to .0050 diametral preload (bearing types C and X)
Y	Aluminum, formed ring, circular pockets.	V - Z	Clearance or preload not defined above.
Z	Other.		

POSITION 10 - INTERNAL FIT FOR DUPLEXED
TYPE A BEARINGS

This position is determined by Kaydon.

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MFR: KEENE CORP., KAYDON BEARING DIVISION (con.)

CODE 32828

Prefix	Suffix	Definition
AA	R	Needle roller, spherical end.
AB	R	Needle roller, ball end.
AB		Annular ball bearing, angular contact, pair of bearings, duplex mounted, back-to-back.
AC	R	Needle roller, conical end.
AF		Annular ball bearing, angular contact, pair of bearings duplex mounted face-to-face.
AF	R	Needle roller, flat end.
AIC		Annular ball bearing, split inner ring, four point ball contact.
AK	R	Needle roller, crankpin end.
AOC		Annular ball bearing, split outer ring, four point ball contact.
AR	R	Needle roller, crowned or relieved diameter.
AS	R	Needle roller, sheared ends, tumbled corners.
AT	R	Needle roller, trunnion end.
AT		Annular ball bearing, angular contact, pair of bearings, duplex mounted, tandem.
BLA		Annular ball bearing, angular contact, metric series.
BLC		Annular ball bearing, radial, non-loading groove construction, metric series.
BLC	X	Annular ball bearing, non-loading groove construction, four point ball contact, metric series.
BLM		Annular ball bearing, radial counterbored outer ring, metric series.
BT		Ball thrust bearing, grooved races.
BTA		Ball thrust bearing, angular contact races.
BTB		Banded ball thrust bearing, grooved races.
BTDD		Ball thrust bearing, double direction type, rigid.
BTDS		Ball thrust bearing, double direction, self-aligning.
BTE		Ball thrust bearing, flat races.
BTS		Ball thrust bearing, self-aligning.
CV		Annular ball bearing, radial non-loading groove construction, very thin section.
CV	X	Annular ball bearing, non-loading groove construction, four point ball contact, very thin section.
HA		Annular ball bearing, angular contact, inch type, heavy series.
HC		Annular ball bearing, radial, non-loading groove construction, inch
HC	X	Annular ball bearing, non-loading groove construction, four point ball contact, inch type, heavy series.
HM		Annular ball bearing, maximum capacity, radial, counterbored outer ring, inch type, heavy series.
JR		Journal roller bearing, heavy series.
JRS		Journal roller bearing, super heavy series.
KA thru		
KG	A	Annular ball bearings, angular contact, counterbored outer ring, inch type, reali-slim series.
KA thru		
KG	C	Annular ball bearing, radial, non-loading groove construction, inch type, reali-slim series.
KA thru		
KG	X	Annular ball bearing, four point contact, inch type, reali-slim series.
KJ		Needle bearing, thin shell, radial, with retainer, open ends.
KN		Needle bearing, thin shell radial, grease retained, open ends.
M		Needle bearing, thin shell radial, grease retained, one end closed.
NT		Needle bearing, thrust, rollers and steel retainer only.
KH	}	
KJ		
KL		
KP		
S		
T		
V		
W		
K		
KR		
		Annular ball bearings, four point contact ball, turntable type.
		Cylindrical roller bearing, two lip inner ring, cylindrical outer ring, inch type, reali-slim series.
KT		Tapered roller bearing, single row, normal angle, reali-slim series.
LC		Annular ball bearing, radial non-loading groove construction, inch type, light series.

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CODE 32828

Prefix	Suffix	Definition
LC	X	Annular ball bearing, non-loading groove construction, four point ball contact, inch type, light series.
RF		Cylindrical roller bearing, two lip inner ring, one lip outer ring.
RFW		Wide type cylindrical roller bearing, two lip inner ring, one lip outer ring.
RM		Cylindrical roller bearing, mill type.
RN		Cylindrical roller bearing, two lip inner ring, cylindrical outer ring.
RND		Cylindrical roller bearing, double-row, precision for spindles.
RNW		Wide type cylindrical roller bearing, two lip inner ring, cylindrical outer ring.
RP		Cylindrical roller bearing, two lip inner ring, two lip outer ring, one outer ring lip separable.
RPW		Wide type cylindrical roller bearing, two lip inner ring, two lip outer ring, one outer ring lip separable.
RS		Spherical roller bearing.
RT		Roller thrust bearing, flat races.
RTB		Banded roller thrust bearing.
RTC		Conical roller thrust bearing.
RTDD		Roller thrust bearing, double acting, rigid.
RTDS		Roller thrust bearing, double acting, self-aligning.
RTS		Roller thrust bearing, self-aligning.
RU		Cylindrical roller bearing, two lip outer ring, cylindrical inner ring.
RUW		Wide type cylindrical roller bearing, two lip outer ring, cylindrical inner ring.
RX		Cylindrical roller bearing, two lip inner ring, cylindrical outer ring, extra light.
TDI		Tapered roller bearing, double-row, double cone.
TDO		Tapered roller bearing, double-row, double cup.
TFR		Tapered roller bearing, four row, two double cones, three cups.
TNA		Tapered roller bearing, double-row, non-adjustable.
TS		Tapered roller bearing, single-row, normal angle.
TF		Tapered roller bearing, single-row, flanged cup.
TS		Tapered roller bearing, single-row, steep angle.

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MFR: KEENE CORP., KAYDON BEARING DIVISION (con.)

CODE 32828

TURNTABLE BEARINGS

1. The turntable identification code is composed of fifteen digits. Each digit position by itself or in combination with other digit positions defines individual characteristics.
2. Position and code for each position (individual, alphabetic or numeric characters used in the bearing or component nomenclature.)

2.1. Position one (race section).

A	}	- Race section of catalog 320.
B		
C		
D		
E		
F	}	- Race section of catalog T-220.
G		
H		
J		
L		
P	}	- Modified race section of catalog T-220.
S		
T		
V		
W		

- 2.2. Positions two, three and four (bearing pitch diameter) these positions are used to define the bearing pitch diameter in which the first three digits of the pitch diameter are multiplied by ten. That is "225" in positions two, three and four indicate a 22.5 inch pitch diameter.

2.3. Position five (bearing type and precision).

- A - Ball bearing, precision grade.
- B - Ball bearing, construction grade.
- C - Roller bearing, precision grade.
- D - Roller bearing, construction grade.

2.4. Position six (ball or roller diameter).

- | | | | |
|-------------|---------------|---------------|---------------|
| A- 3/4 inch | C- 1 inch | E- 1-1/4 inch | G- 1-1/2 inch |
| B- 7/8 inch | D- 1-1/8 inch | F- 1-3/8 inch | H- 1-5/8 inch |
- J - 1-3/4 inches
 - K - 1-7/8 inches
 - L - 2 inches
 - M - 2-1/4 inches
 - N - 2-1/2 inches
 - P - 2-3/4 inches
 - Q - 3 inches

2.5. Position seven (gear and separator).

- 1 - No gear with spacers
- 2 - External gear with spacers
- 3 - Internal gear with spacers
- 4 - No gear with steel segments
- 5 - External gear with steel segments
- 6 - Internal gear with steel segments
- 7 - No gear with other separator
- 8 - External gear with other separator
- 9 - Internal gear with other separator
- 0 - Other (for no separator)

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FR: KEENE CORP., KAYDON BEARING DIVISION (con.)

CODE 32828

2.6. Position eight (pilots).

- 1 - Pilot on bore and outside diameter
- 2 - Pilot on both lands
- 3 - Pilot bore and outer race land
- 4 - Pilot on outside diameter and inner race land
- 5 - Pilot on bore only
- 6 - Pilot on outside diameter only
- 7 - Pilot on inner race land only
- 8 - Pilot on outer race land only
- 9 - No pilots
- 0 - Other method of piloting

2.7. Position nine (seals and/or shields).

- A - Two molded Buna-N rubber face seals, one with contact lip on inner race and one with contact lip on outer race.
- B - Two molded Buna-N rubber seals, one face seal with contact lip on inner race and one land seal with contact lip on outer race.
- C - Two molded Buna-N rubber seals, one face seal with contact lip on inner race and one land seal with contact lip on outer race.
- D - Two molded Buna-N rubber seals, one face seal with contact lip on outer race and one land seal with lip on inner race.
- E - Two molded Buna-N rubber seals - one face seal with contact lip on outer race and one land seal with contact lip on outer race.
- F - One molded Buna-N rubber face seal with contact lip on inner race and one phenolic laminate shield.
- G - One molded Buna-N rubber face seal with contact lip on outer race and one phenolic laminate shield.
- H - One molded Buna-N rubber face seal with contact lip on inner race.
- J - One molded Buna-N rubber face seal with contact lip on outer race.
- K - Two molded Buna-N rubber land seals with contact lips on inner race.
- L - Two molded Buna-N rubber land seals with contact lips on outer race.
- M - Two molded Buna-N rubber land seals, one with contact lip on inner race and one phenolic laminate shield.
- P - One molded Buna-N rubber land seal with contact lip on outer race and one phenolic laminate shield.
- Q - One molded Buna-N rubber land seal with contact lip on inner race.
- R - One molded Buna-N rubber land seal with contact lip on outer race.
- S - Two phenolic laminate shields.
- T - One phenolic laminate shield.
- U - No seals.
- Z - Other.

2.8. Position ten (mounting provisions).

- A - Thru holes both races.
- B - Tapped holes both races.
- C - Counterbored holes both races.
- D - Thru holes inner race and tapped holes outer race.
- E - Thru holes inner race and counterbored holes outer race.
- F - Thru holes outer and tapped holes inner race.
- G - Thru holes outer and counterbored holes inner race.
- H - Tapped holes inner and counterbored holes outer race.
- J - Tapped holes outer race and counterbored holes inner race.
- K - Weld ring inner race and thru holes outer race.
- L - Weld ring inner race and tapped holes outer race.
- M - Weld ring inner race and counterbored holes outer race.
- N - Weld ring outer race and thru holes inner race.
- P - Weld ring outer race and tapped holes inner race.
- Q - Weld ring outer race and counterbored holes inner race.
- Z - Other.

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MFR: KEENE CORP., KAYDON BEARING DIVISION (con.)

CODE 32828

-
- 2.9. Positions eleven, twelve, thirteen, fourteen, and fifteen.
Five position number from 0 to 1,999; 3,000 to 19,999; 60,000 to 99,999 denotes:
(as specified in SPI 60-01-5).

Drawing number
File number, or
Data sheet number

3. Lubrication - for lubrication other than General Purpose Grease No. 1EP, see instructions on factory order.

MIL-HDBK-203C
 5 January 1977

R: KUBAR INC.

CODE 14927

Prefix	Definition	Suffix	Definition
S	MATERIAL: Symbol "S" is used for 440C stainless steel 58-62 Rockwell "C".	HH	SHIELDS OR SEALS: Symbol "H" is used for one shield. Symbol "HH" is used for two shields. Shields are 301 stainless steel removable type. To order flanged shielded bearings with one shield. Use "H1" for shield on flanged side. Use "H2" for shield opposite flange.
F	Flange: 1 Symbol "F" is to be used if a flanged bearing is desired. If purchasing a bearing with a straight outer diameter leave this space empty.		Symbol "T" is used for one seal. Symbol "TT" is used for two seals. The seals are pure white virgin Teflon and have unusually low torque characteristics for sealed bearings.
R	BEARING STYLE: Symbol "R" is used for all KuBar bearings. This signifies single-row radial bearing retainer type.		Symbol "UH" to be used for single shield narrow width bearings.
B	RETAINER STYLE: Symbol "B" is to be used for 430 stainless steel two piece ribbon type retainer. If the standard L type 410 stainless steel one piece crown type retainer is needed leave this space empty.	K25	RADIAL PLAY: Symbol "K" followed by numbers indicates radial play in ten-thousandths of an inch. Example: K25 = 0.0002/0.0005
LO1	LUBRICATION: LD - Lubrication dry LO - Followed by a number indicates special oil lubrication LG - Followed by a number indicates special grease lubrication LS - Followed by a number indicates special silicone fluid lubrication See Lubricants	ST9	STARTING TORQUE: Symbol "ST" followed by a number indicates starting torque in hundreds of MG-MM.
ZO	CODING: ZD - Bore and outer diameter coded to size in 0.0001 increments. ZO - Outer diameter coded to size in 0.0001 increments. ZB - Bore coded to size in 0.0001 increments.	HOW TO READ KUBAR INC. BALL BEARING PART NUMBERS: EXAMPLE: S F R B 2 HH K25 ST9 LO1 ZO P (5) S Material F Flange R Bearing style B Retainer style 2 Basic bearing numbers HH Shields or seals K25 Radial play ST9 Starting torque LO1 Lubrication ZO Coding P Packaging (5) ABEC grade	

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MFR: KUBAR INC. (con.)

CODE 1492

Suffix	Definition
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P	Packaging:
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If you desire vial pack leave this space blank. Use symbol P if pill pack is desired. Use symbol M if blister pack is desired. See page 10 packaging description.

(5)	ABEC Grade
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 CODE 14927

MFR: KUBAR INC. (con.)

LUBRICANTS AVAILABLE								
OILS			GREASE			SILICONE FLUIDS		
KUBAR NO.	MANUFACTURER'S NO.	MIL. SPEC.	KUBAR NO.	MANUFACTURER'S NO.	MIL. SPEC.	KUBAR NO.	MANUFACTURER'S NO.	MIL. SPEC.
LO 1	WINDSOR LUBE L245X ANDERSON OIL COMPANY	MIL-L-6085A	LG 1	BEACON 325 HUMBLE OIL AND REFINING CO.	MIL-G-3278A	LS 1	TERESSO V78 HUMBLE OIL AND REFINING CO.	NONE
LO 2	ANDEROL L491D COMPANY	MIL-L-6085A	LG 2	DC 33 DOW CORNING	NONE	LS 2	DC510 (50) FLUID DOW CORNING	NONE
LO 3	ECLIPSE PIONEER P-10	MIL-L-6085A	LG 3	ANDEROL L794 LEHIGH CHEMICAL CO.	NONE	LS 3	MIXTURE: 10GR VERSILUBE G300 and 80cc VERSILUBE F50	NONE
LO 4	UNIVIS P-38 HUMBLE OIL AND REFINING CO.	MIL-L-6085A	LG 4	SUPERMIL ASU #31052 AMERICAN OIL CO.	MIL-G-25013C	LS 4	SP81 (40) GENERAL ELECTRIC	NONE
LO 5	AEROSHELL FLUID 12 (E and W) SHELL OIL	MIL-L-6085A	LG 5	TEXACO 100EP (LOW TEMP) TEXAS CO.	NONE	LS 5	DC200 (20) LIGHT OIL DOW CORNING	NONE
LO 6	ESSO AVIATION INSTRUMENT OIL	MIL-L-7870A	LG 6	TEXACO 1999 (HIGH TEMP) TEXAS CO.	MIL-L-3545	LS 6	DC200 (350) FLUID DOW CORNING	NONE
LO 7	WINDSOR LUBE L1018 ANDERSON OIL COMPANY	MIL-L-7870A	LG 7	ANDEROL L793 LEHIGH CHEMICAL CO.	MIL-G-3728A	LS 7	MINERAL OIL GENERAL ELECTRIC	NONE
LO 8	UNIVIS P-48 HUMBLE OIL AND REFINING CO.	MIL-L-644B	LG 8	ANDEROL L793 LEHIGH CHEMICAL CO.	MIL-G-15793	LS 8	VERSILUBE F50 GENERAL ELECTRIC	NONE
LO 9	ANDEROL L451 LEHIGH CHEMICAL COMPANY	MIL-L-17353	LG 9	TEXACO 188 (LOW TEMP) TEXAS CO.	MIL-G-7421	LS 9	VERSILUBE F44 GENERAL ELECTRIC	NONE
LO 10	ANDEROL L456 LEHIGH CHEMICAL COMPANY		LG 10	TEXACO 1959 UNITEMP TG 1224	MIL-G-3278A	LS 10	DC550 FLUID DOW CORNING	NONE
LO 11	BRAY OIL NN796		LG 11	TEXACO UNITEMP 500 TEXAS CO.	NONE	LS 11	AIRCRAFT TURBINE OIL SHELL OIL COMPANY	NONE
LO 12	BRAYCO MICRONIC NPT 3		LG 12	ANDOC C ESSO STANDARD OIL CO.	NONE	LS 12	ETRB SHELL OIL COMPANY	NONE
			LG 13	ETRH AERO-SHELL 15 SHELL OIL CO.	MIL-G-25013C	LS 13	SUPERMIL M-100 STANDARD OIL OF INDIANA	NONE
			LG 14	AEROSHELL 7A SHELL OIL CO.	MIL-G-7118A	LS 14	FS1265 (HIGH TEMP) DOW CORNING	NONE
			LG 15	VERSILUBE G 300 GENERAL ELECTRIC	NONE	LS 15	MIXTURE: 10GR DC33 (LIGHT) and 80cc DC200 (20) CS	NONE
			LG 16	DC 44 GREASE DOW CORNING	MIL-G-15719A	LS 16	UNIVIS P55 HUMBLE OIL and REFINING CO.	NONE
			LG 17	ANDOC B ESSO STANDARD OIL CO.	MIL-G-18709	LS 17	MIXTURE: DC 200 (20) and 0.3 PERCENT BY WEIGHT OF ORTHOLE UM #162	NONE
			LG 18	DARINA GREASE 2 SHELL OIL CO.		LS 18	DUPONT PRODUCT 53019-R (CAL-RESEARCH 106) CALIFORNIA RESEARCH CORP.	NONE
			LG 19	TEXACO UNITEMP TG-749 TEXAS CO.	MIL-G-3278A	LS 19	MIXTURE: EQUAL PARTS BEACON 325 and ESSO WS1290	NONE
			LG 20	DC55, PNEUMATIC GREASE DOW CORNING	MIL-L-4343A			
			LG 21	TEXACO UNITEMP EP	MIL-G-23827			

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MFR: KUBAR INC. (con.)

CODE 14927

LUBRICANTS AVAILABLE								
OILS			GREASE			SILICONE FLUIDS		
KUBAR NO.	MANUFACTURER'S NO.	MIL. SPEC.	KUBAR NO.	MANUFACTURER'S NO.	MIL. SPEC.	KUBAR NO.	MANUFACTURER'S NO.	MIL. SPEC.
			LG 22	SUPERMIL 06752 AMERICAN OIL CO.	MIL-G-25760	LS 20	MIXTURE: 10GR DC33 (LIGHT) and 80cc XYLENE (AN-R-X-876)	NONE
			LG 23	ANDOK 260 HUMBLE OIL and REFINING CO.		LS 21	MIXTURE: 10GR G E G300 and 80cc G E F44	NONE
			LG 24	ROYCO 21 ROYAL LUBRICANT CO.	MIL-G-7421	LS 22	G E SF 81 (50)	NONE
			LG 25	SUPERMIL 72832 AMERICAN OIL CO.	MIL-G-23827	LS 23	G E SF 95 (t)	NONE
			LG 26	SUPERMIL ASU M-100 AMERICAN OIL CO.		LS 24	G E F 50 and 0.3 PERCENT BY WEIGHT ORTHULEUM #16	
			LG 27	SUPERMIL ASU M-40 AMERICAN OIL CO.		LS 25	DOW CORNING FS1265 (300 C S)	
			LG 28	AEROSHELL 15D	MFR. DISCONT	LS 26	DOW CORNING FS1265 (L) (C S)	
			LG 29	ANDEROL L-795 SHELL		LS 27	DC 200 (50 C S)	
			LG 30	ALVANIA 30		LS 28	DC 510 (1000C S)	
			LG 31	MOBIL #28		LS 29	DC510 (100 C S)	
			LG 32	KRYTOX #240 AC E. I. DUPONT			FORMULA BY WEIGHT 76 PERCENT 50 CS - 24 PERCENT 1000 C S	
			LG 33	NR RL #159 STANDARD OIL OF CALIFORNIA				

MIL-HDBK-203C
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MFR: LANDIS AND GYR, INC.

CODE 75523

Prefix	Suffix	Definition
B		Thrust bearings.
C		Angular contact bearings - 60 degree tapered pivot type - unbored cup.
CF		Angular contact bearings - 60 degree tapered pivot type - unbored cup.
G		Gyro quality.
NP		Radial roller bearings: non-separable with shields.
NU		Radial roller bearings: separable with shields.
NUS		Radial roller bearings: without inner race with shields.
OD		Angular contact bearings, pivot type for cylindrical shouldered pivots: separable unbored cup.
ODT		Angular contact bearings, pivot type for cylindrical shouldered pivots: separable bored cup.
OR		Angular contact bearings, pivot type for cylindrical shouldered pivots: non-separable unbored cup.
ORT		Angular contact bearings, pivot type for cylindrical shouldered pivots: non-separable bored cup.
P		Angular contact bearings - 60 degree tapered pivot type: bored cup.
PF		Angular contact bearings - 60 degree tapered pivot type: bored cup.
R		Open, unflanged radial ball bearings.
RA		Angular contact separable bearings.
RF		Radial, unflanged ball bearings with Filmoseal closures.
RK		Open, flanged radial ball bearings.
RKF		Flanged, radial ball bearings with Filmoseal closures.
RKU		Open, flanged extended inner ring radial ball bearings.
RKUF		Flanged, radial ball bearings, extended inner ring with Filmoseal closures.
RU		Open, unflanged extended inner ring radial ball bearings.
RUF		Radial ball bearings, flanged, extended inner ring with Filmoseal closures.
RV		Radial, unflanged ball bearing with shields, same width as open bearings.
RX		Radial, unflanged ball bearings with shields.
S		Separable angular contact bearings.
SKR		Separable angular contact bearings, flanged.
SM		Radial bearings for high precision scale.
SR		Separable angular contact bearings.
UL		Open, unflanged, ultra-light radial ball bearings.
ULK		Open, flanged, ultra-light radial ball bearings.
ULU		Open, unflanged, extended inner ring, ultra-light radial ball bearings.
ULKU		Open, flanged, extended inner ring, ultra-light radial ball bearings.
ULZ		Shielded, unflanged, ultra-light radial ball bearings.
ULKZ		Shielded, flanged, ultra-light radial ball bearings.
ULUZ		Shielded, unflanged, extended inner ring, ultra-light radial ball bearings.
ULKUZ		Shielded, flanged, extended inner ring, ultra-light radial ball bearings.
	X *	Stainless steel AISI 440C.
	Y *	Beryllium copper.
	A1	ABEC-1.
	A3	ABEC-3.
	A5	ABEC-5.
	A7	ABEC-7
		* No suffix immediately after the basic bearing, number denotes SAE 52100 chrome steel.
	--	Unless otherwise noted - Std 2 piece ribbon retainer is used.
	-48	Loosely crimped 2 piece ribbon retainer.
	-48-TF	Teflon coated 2 piece ribbon retainer.
	-23-BB	Cage 23 made from cotton base phenolic material.
	-23-XX	Cage 23 made from paper base phenolic material.
	-23-DL	Cage 23 made from Delrin.
	-23-NS	Cage 23 made from syntered nylon.
	-25-BB	Cage 25 made from cotton base phenolic material.
	-25-XX	Cage 25 made from paper base phenolic material.
	-24-NS	Cage 25 made of syntered nylon.
		The basic retainer designation for cage 23 and 25 is followed by one digit indicating the number of balls.
	2/5	Radial play is 0.0001 inch to 0.0002 inch (upper and lower limits in metric micrometers).

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MFR: LANDIS AND GYR, INC. (con.)

CODE 75523

Prefix	Suffix	Definition
	2/10	Radial play of 0.0001 inch to 0.0004 inch (upper and lower limits in metric micrometers.
	3/7	Radial play of 0.0001 inch to 0.0003 inch (upper and lower limits in metric micrometers.
	6/10	Radial play of 0.0002 inch to 0.0004 inch (upper and lower limits in metric micrometers.
	11/15	Radial play of 0.0004 inch to 0.0006 inch (upper and lower limits in metric micrometers.
	11/20	Radial play of 0.0004 inch to 0.0008 inch (upper and lower limits in metric micrometers.
	13/20	Radial play of 0.0005 inch to 0.0008 inch (upper and lower limits in metric micrometers.
	16/20	Radial play of 0.0006 inch to 0.0008 inch (upper and lower limits in metric micrometers.
	0.1	Unflanged bearings with one shield or Filmoseal closure only.
	0.1C	Flanged bearings with one shield or seal, shield or seal on flanged side.
	0.1V	Flanged bearings with one shield or seal, shield or seal on opposite side of flange.
	0.0	Bearings with width of shielded bearings but supplied open.
	0.9f/200	Face-to-face mounting duplex pair with 200 gram preload.
	.9d/200	Back-to-back mounting duplex pair with 200 gram preload.
	.9f/200	Tandem mounting duplex pair with 200 gram preload.
	11/16	
	degree	Contact angle - lower and upper limits.
	14/15	
	degree	Contact angle - lower and upper limits.
	14/19	
	degree	Contact angle - lower and upper limits.
	17/22	
	degree	Contact angle - lower and upper limits.
	20/22	
	degree	Contact angle - lower and upper limits.
	20/25	
	degree	Contact angle - lower and upper limits.
	23/28	
	degree	Contact angle - lower and upper limits.
	26/31	
	degree	Contact angle - lower and upper limits.
	29/34	
	degree	Contact angle - lower and upper limits.
	10/75D	Torque: First part of number gives highest admissible torque value expressed in hundreds of mg/mm. Second part gives thrust load in grams. D = Starting torque. M = Running torque.
	S2	Dimensional coding of bore and O.D. in increments of 0.0001 inch.
	SN	Dimensional coding of bore only in increments of 0.0001 inch.
	SB	Dimensional coding of O.D. only in increments of 0.0001 inch.
	S2/21	Dimensional coding of bore and O.D. to specific code groups in increments of 0.0001 inch.
	S1.25	Dimensional coding of bore and O.D. in increments of 0.00005 inch.
	SN1.25	Dimensional coding of bore only in increments of 0.00005 inch.
	SB1.25	Dimensional coding of O.D. only in increments of 0.00005 inch.
	S1.25/BB	Dimensional coding of bore and O.D. to specific code groups in increments of 0.00005 inch.
	J	Special instructions follow in the form of one or several digits. Deviation from standard dimensions would be contained in a J number.

NOTE: Lubrication is always spelled out; it is not part of the part number.

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MFR: LANDIS AND GYR, INC. (con.)

CODE 75523

Prefix	Suffix	Definition
How to read Landis and Gyr bearing numbers:		
Example:	ULKZ 6012X.1C-48-A5-11/20-12/75M-J215	
ULKZ		Shielded, flanged, ultra-light radial ball bearings
6012		Basic bearing number
X		Stainless steel
.1C		One shield on flange side of bearing, other side open
-48		Loosely crimped ribbon retainer
-A5		ABEC-5P precision
-11/20		Radial play of 0.0004 inch to 0.0008 inch (indicated in metric microns)
-12/75M		Torque rating: less than 1200 mg/mm peak running torque
-J215		Special instructions denoting a deviation from standard dimensions or specifications

The basic bearing number gives the bore and O.D. dimensions. In the inch size bearings it is in 32nds of an inch; in metric sizes it is in millimeters.

Example: UL 307X-237BB-A7

UL	Open, unflanged, ultra-light radial bearing
307	Basic bearing, number-bore=3mm. O.D. = 7mm
X	Stainless steel
-237BB	Cage 23 made from cotton base, phenolic material - 7 balls per bearing
-A7	ABEC-7P precision

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MFR: LUNDQUIST TOOL AND MFG. CO., INC.

CODE 74010

CLASS	O.D. SIZE	TYPE	VARIATION
STANDARD HD • HEAVY DUTY C • CONVEYOR CC • LIGHT DUTY A • NON-STANDARD O.D. M • METRIC	IN 1/32 INCH INCREMENTS	F • FLANGED R • RADIAL WF • WHEEL AC • ANGULAR CONTACT T • THRUST RH • ROLL HEAD BR • BEARING ROLLER	A • NON-STANDARD CONE EXTENSION H • HEX. BORE S • SQUARE BORE AX • SET SCREW CX • PIN TYPE

FINISH	BORE SIZE	SEALING
C • CADMIUM CR • CHROME Z • ZINC B • BRASS BR • BRONZE SS • STAINLESS STEEL	IN 1/64 INCH INCREMENTS	SHIELDED MP • SINGLE PLATE MPP • DOUBLE PLATE P • SINGLE NEO. PP • DOUBLE NEO. PP.2 • TRIPLE NEO. PLA • PRESSURE LUBE

EXAMPLE:

HD64FAZ48MPP

$\frac{HD}{HEAVY DUTY}$ $\frac{64}{2 \text{ INCH OD}}$ $\frac{F}{FLANGED}$ $\frac{A}{\frac{1}{4} \text{ INCH CONE EXTENSION}}$
 (Standard 1/8 inch for 2 inch bearing)

$\frac{Z}{ZINC PLATE}$ $\frac{48}{3/4 \text{ INCH BORE}}$ $\frac{MPP}{DOUBLE PLATE}$
 (Jacket only) SEALED

MIL-HDBK-203C
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MFR: MARLIN-ROCKWELL CO DIV OF TRW INC

CODE 38443

Prefix	Suffix	Definition
	A	Angular contact, double-row*
	A	Silver plated bore*
	A	Amount of lubricant-1 full and all external surfaces coated
	A	Free running, no end play
	A	Steel retainer (when preceded by three digit number, e.g., and 001A)
	A	(Followed by numeral) noise test, quiet
	A	Aviation quality
	A3ZZC	Cylindrical O.D., cartridge width, 2 triple lip seals
	AA	Silver plated bore and outside diameter*
	AAA	Silver plated outside diameter*
	AS	Double-row, non-loading groove construction; angular contact type, with cast bronze finger type retainer*
	ASH	Double-row, non-loading groove construction, angular contact type, bronze retainer narrow width*
	B	Amount of lubricant-2 full and all external surfaces coated
	B	Grooved races, inch standards-thrust type
	B	Outwardly converging contact angle, double-row bearing
	B	Machines non-metallic (bakelite) retainer (when preceded by three digit number, e.g., and 007B)
	B	Quiet
	B	Ordnance, Navy, and Army Engineers inspection*
	B3ZZC	Spherical O.D. cartridge width, 2 triple lip seals
BC		Bell crank bearing, aircraft type*
	C	Single-row, non-loading groove construction (same as S except small balls)
	C	Flat races, inch standards-thrust type
	C	Bronze retainer, (when preceded by three digit number e.g., and 003C)
	C	Amount of lubricant-3 full and all external surfaces coated
	C	Copper plate, bore only-propeller blade type*
	CC	Copper plate, bore and outside diameter-propeller blade type*
	CCC	Copper plate, outside diameter only-propeller blade type*
CONV		Conveyor roll bearing
	CT	Clutch throwout type (plain)
	CTB	Conrad, adapter type bearing with tapered bore*
	CTM	Clutch throwout type with flush housing
	CTQ	Clutch throwout type with extended housing
	CTR	Clutch throwout type with housing and grease fitting
	AA	Lubricant symbol MIL-G-18709
	AB	Lubricant symbol MIL-G-25013
B		Torque tube airframe bearing
BWF		Double row, integral shaft bearing
	C	Critical quality
	C	Cylindrical roller bearing (cylindrical outer two flange inner)
	CTC	Clutch throwout type with extended housing
	CTH	Clutch throwout type with housing and grease fitting
	CY	Cylindrical roller bearing (inner, cage and roller assembly)
	D	Bearing with controlled relationship of ring faces used in duplex sets
	D	Amount of lubricant-4 full and all external surfaces coated
	D!	Die cast bronze cage when preceded by three digit number-017D, 018D,
	DB	Duplex back-to-back
	DF	Duplex face-to-face
	DS	Universal duplex (DB-DF-DT) with preload
	DT	Duplex-tandem
	DU	Universal duplex (DB-DF-DT), free running-no end play
	E	Amount of lubricant-5 full and all external surfaces coated
	E	Bronze cage when preceded by three digit number-006E
	E	Extra quiet
EM		Miniature instrument bearing (52100 steel)
	EO	Concave outside diameter
	ES	Elevator special*
	F	Flat seat, thrust type
	F	Amount of lubricant-6 full and all external surfaces coated
	F	Strip bronze cage when preceded by three digit number-006F

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MFR: MARLIN-ROCKWELL CO DIV OF TRW INC (con.)

CODE 38443

Prefix	Suffix	Definition
	F	One shield (non-removable)
	FA	Full type, aviation rocker arm (201-FA size)*
FB		Flange type instrument bearing (tapered O.D.)
FC		Flange type instrument bearing (cylindrical O.D.)
	FF	Two shields (non-removable)
	FFM	Two metal shields
	FFP	Two rubber beaded shields
	FFS	Two felt seals
	FG	Shield and snap ring
	FM	One metal shield
	FP	One rubber beaded shield
	FS	Felt seal
	FSF	Felt seal and shield
	FSFG	Felt seal, shield and snap ring
	FSG	Felt seal and snap ring
	FW	Same as FA (200 series)*
	F4	Pressed bronze retainer, two piece, riveted (obsolete-replaced by 303C and 003C or 306C and 006C)*
	G	Cage-24ST when preceded by three digit number-006G aluminum
D		Cylindrical roller bearing (one flange outer, two flange inner)
DPP		Airframe bearing
DSP		Airframe bearing
DW		Airframe bearing
DW	K	Airframe bearing
	E	Cylindrical roller bearing (two flange outer, cylindrical inner)
	EX	Cylindrical roller bearing (outer cage and roller assembly)
ER		Power transmission type, extended inner, set screws, snap ring
		relubrication hole in outer
	F	Cylindrical roller bearing
	G	Amount of lubricant-7 full and all external surfaces coated
	G	Snap ring
G		Snap ring on same side as shield
G	M	Snap ring opposite slotted side-loading groove construction-G207M
G	SF	One shield, snap ring and groove on same side as shield
	H	Split outer ring-9000 series (e.g. 9307-H)
	H	Amount of lubricant-8 full and all external surfaces coated
	H	Stainless steel cage when preceded by 3 digit number --6H
	H	Old width (less than standard) double-row
	J	Monel metal cage when preceded by 3 digit number-006J
	J	Amount of lubricant-9 full and all external surfaces coated
	K	Double row standard width, SRB type (5200 K series)
	K	Amount of lubricant full and all external surfaces coated
	K	Malleable iron cage when preceded by 3 digit number-006K
	KR	Radial (counter bore) type extra light series
	KS	Non-filling slot type, extra light series
LB		Flange unit, labri-seal bearing, non regreaseable
LZ		Flange unit, synthe-seal bearing, non regreaseable
M		Miniature instrument bearing (stainless steel)
	M	Forged bronze cage-Mueller 803 silicon iron when preceded by 3 digit number-306M-006M*
	M	Maximum capacity type (filling notches and stayrod type cage-more balls than S types)
	MFL	Maximum capacity type with 1 shield and loose internal fit*
MR		Cylindrical roller bearing
	MX	Maximum capacity type with taper bore
	M8	Machined non-metallic retainer, one piece solid bakelite compound, centered by balls (obsolete-replaced by 314B suffix and 014B)
	N	Amount of lubricant, one drop oil
	N	Olite bronze cage when preceded by 3 digit number 006N
	NV	Naval inspection*
	P	Amount of lubricant-two drops oil
	G	Cylindrical roller bearing (two flange outer, single flange inner)

MIL-HDBK-203C
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MFR: MARLIN-ROCKWELL CO DIV OF TRW INC (con.)

CODE 38443

Prefix	Suffix	Definition
G	MS	Pressed flange housing regreasable
GR		Pillow block, flexigard seal bearing, regreasable
GT		Pillow block, synthe-seal bearing, regreasable
4H		Two PTFE seals (internal self augning airframe)
	J	Cylindrical roller bearing (inner only)
K	L	Airframe bearing
KP		Airframe bearing
KP	A	Airframe bearing
KP	B	Airframe bearing - torque tube
KP	BS	Airframe bearing - torque tube, self aligning ring of O.D.
KSP		Airframe bearing
KSP	A	Airframe bearing
KSP	L	Airframe bearing
LL		Two glass reinforced fabric PTFE seals
LL	Y	Two PTFE seals
M		Special close tolerance (airframe bearings)
	-MS-	Pressed flange housing
	P	Single row, radial thrust (angular contact-40 degree contact angle)
	P	Nylon cage when preceded by 3 digit number- 006P
	PA	Hycar seal material
PB		Pillow block, labri-seal bearing, non-regreaseable
	PR	Propeller shaft bearing. Similar to "S" but designed to take misalignment*
PZ		Pillow block, synthe-seal bearing, non-regreaseable
R		Small inch dimension bearings
	R	Cast iron cage when preceded by 3 digit number-006R
	R	"R" radial type (low shoulder on one side-maximum number of balls-no filling notches)
RA	AZZ	Power transmission bearing, inner ring extended, one side only, synthe-seals, cylindrical O.D. of outer ring, non-regreaseable
RA	BZZ	Power transmission bearing, inner ring extended, one side only, synthe-seals, spherical O.D. of outer ring, non-regreaseable
	RDM	Dynamometer specifications*
	RDT	Radial bearing with split inner race*
RE		Rod end bearing
	RM	European width*
	RS	Radial contact, standard width, bronze separator, double-row, Conrad type*
	RSH	Radial contact, width less than standard, bronze separator, double-row, Conrad type*
	RT	100 percent radial thrust*
	RTB	Radial adapter type bearing*
	RX	Radial bearing only, for adapter sleeve, taper bore
	RXY	Radial adapter type (complete with adapter) taper bore
	R2	Two piece outer ring construction, double-row*
	S	Super Conrad type (no filling notches-ribbon type cage-fewer balls than "M" and larger balls than "C")
	S	(Followed by numeral) noise test-super quiet
S	S	Inch size series*
	SB	Super Conrad type-inverted contact angle (double-row)
	SFFC	Cartridge type with 2 shields
	SFFCG	Cartridge type with 2 shields and snap ring
	SFFXY	Super Conrad type with 2 shields, taper bore and adapter sleeve
	SH	Super Conrad type-width greater than standard*
	SL	Super Conrad type with loose internal fit*
	SRRC	Cartridge type-2 "LABRI-Seals"
	ST	Stainless steel
P		Aircraft pulley bearing
P	K	Aircraft pulley bearing
PD	K	Aircraft pulley bearing
	Q	Cylindrical roller bearing (outer only)
R		Cylindrical roller bearing

MIL-HDBK-203C
 5 January 1977

MFR: MARLIN-ROCKWELL CO DIV OF TRW INC (con.)

CODE 38443

Prefix	Suffix	Definition
RA	ATT	Power transmission bearing inner ring extended one side only, flexigard seals, cylindrical O.D., non-regreaseable
RA	BTT	Power transmission bearing, inner ring extended one side only, flexigard seals, spherical O.D., non-regreaseable
REP	F	Rod end - female threaded shank
REP8	N	Rod end - female threaded shank
REP	H	Rod end - Hollow shank
REP	M	Rod end - Male threaded shank
REP	MS	Rod end - Male threaded shank-slotted
REP	S	Rod end - Solid shank
RRA	BTT	Power transmission bearing, inner ring extended one side only, flexigard seals, spherical O.D., regreaseable
RRA	BZZ	Power transmission bearing, inner ring extended one side only, synthe seals, spherical O.D., regreaseable
	SV	Super Conrad type-narrow width*
	SWI	Super Conrad type with wide inner ring
	SX	Super Conrad type-taper bore, for adapter sleeve
	SXY	Super Conrad type-taper bore-adapter sleeve
	SZZC	Cartridge type-2 synthetic rubber seals
	T	AMS 4640 (modified) bronze cage when preceded by 3 digit number 006T
	TB	Adapter type bearing*
T	ARR	Power transmission bearing, inner ring extended both sides, labri-seals, cylindrical O.D. of outer ring
T	AZZ	Power transmission bearing, inner ring extended both sides, synthe-seals, cylindrical O.D. of outer ring
T	BRR	Power transmission bearing, inner ring extended both sides, labri-seals, spherical O.D. of outer ring
T	BZZ	Power transmission bearing, inner ring extended both sides, synthe-seals, spherical O.D. of outer ring
	U	Split inner ring-9000 series (e.g. 9220-U)
	U	Thrust type with aligning washer (see under thrust bearings)
	U	AMS 4121 duralumin cage when preceded by 3 digit number 006U
	UK	Split inner ring bearing of 100K series dimensions (follows 9100 basic bearing number)
	V	Forged silicon iron bronze cage when preceded by 3 digit number-006V
	V	Single row, maximum capacity, narrow width (same bore and outside diameter as standard)*
	WFI	Wide inner ring type with set screw and shield
	WI	Wide inner ring, maximum capacity type (width of inner ring is same as that of double-row bearing)
	X	Taper bore bearing
	X	Special tolerances
	X	Amount of lubricant. Special greasing instructions
UR		Flange unit, synthe - seal bearing, regreaseable
UT		Flange unit, flexigard seal bearing, regreaseable
	W	Cylindrical roller bearing (cage and roller assembly)
XLR		Cylindrical roller bearing-inch dimensions
XLS		Inch dimension radial (counterbore) type bearing
	*Y	Taper bore bearing with adapter sleeve
	Y	Adapter sleeve
	Z	One synthetic-contact seal
	ZZ	Two synthetic contact seals
	01	ABEC-1 tolerances (formerly Q)
	01	Lubricant symbol, #62 grease*
	02	Lubricant symbol, Andok B*
	2	0.0004 inch total radial tightness (nominal) (obsolete see 02)*
	02	0.0004 inch total radial tightness (nominal)
	3	Lubricant symbol, Aero EP LO-HI, MIL-G-7118*
	03	ABEC-3 tolerances (formerly S)
	3	0.0002 inch total radial tightness (nominal) (obsolete see 03)*
	03	0.0002 inch total radial tightness (nominal)
	04	Lubricant symbol, L-401 Oil, MIL-L-6085*
	4	Line-to-line (zero) radial clearance (nominal) (obsolete see 04)*

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Prefix	Suffix	Definition
	04	Line-to-line (zero) radial clearance (nominal)
	05	Lubricant symbol MILVAC-10924, MIL-G-10924*
	05	ABEC-5 tolerances (formerly SP)
	5	0.0002 inch total radial looseness (nominal) (obsolete see 05)*
	05	0.0002 inch total radial looseness (nominal)
	06	Lubricant symbol, MIL-G-10924
	6	0.0004 inch total radial looseness (nominal) (obsolete see 06)*
	06	0.0004 inch total radial looseness (nominal)
	07	Lubricant symbol, MIL-G-18709 CHEVRON OHT grease
	07	ABEC-7 tolerance (formerly USP)
	7	0.0006 inch total radial looseness (maximum) (obsolete see 07)*
	07	0.0006 inch total radial looseness (nominal)
	08	Lubricant symbol, MIDCO instrument #287 grease (changed to ANDEROL-L-793)*
	8	0.0008 inch total radial looseness (nominal) (obsolete see 08)*
	08	0.0008 inch total radial looseness (nominal)
	09	Lubricant symbol, AC-1789-19 (STL-168)*
	9	0.0010 inch total radial looseness (nominal) (obsolete see 09)*
	09	0.0010 inch total radial looseness (nominal)
	10	0.0012 inch total radial looseness (nominal)
	11	0.0014 inch total radial looseness (nominal)
	11	Lubricant symbol, Cyprina #3 Shell MIL-G-18709
	12	0.0016 inch total radial looseness (nominal)
Y		PWIDS aircraft pulley bearing
	10	Special lubrication
	18	Lubricant symbol KENDEX 7012 (MIL-C-11796)
	28	Lubricant symbol, A-29 special*
	47	Lubricant symbol, Univis oil #P-48
	48	Lubricant symbol, S-58 MIL-G-18709*
	54	Lubricant symbol, Unoba grease*
	55	Lubricant symbol, Royce #5*
	57	Lubricant symbol, Royce #6A*
	58	Lubricant symbol, Beacon M-285*
	59	Lubricant symbol, Lubriko M-31*
	60	Lubricant symbol, Andok C,
	61	Lubricant symbol, Lubriko M-32
	63	Lubricant symbol, Keystone #84-medium*
	64	Lubricant symbol, S-57*
	65	Lubricant symbol, MIL-L-7808
	66	Lubricant symbol, 66-C*
	67	Lubricant symbol, WS-429 Oil, A1106A*
	69	Lubricant symbol, Keystone 3-CH medium, MIL-L-3545*
	70	Lubricant symbol, Strona LT-1*
	71	Lubricant symbol, Unitemp grease, MIL-G-3278*
	72	Lubricant symbol, Lubriko M-24*
	73	Lubricant symbol, Regal Starfax special, MIL-L-7711*
	74	Lubricant symbol, W-56 grease, MIL-G-18709*
	75	Lubricant symbol, Beacon 325,
	76	Lubricant symbol, Keystone 89 medium silicone, MIL-G-15719*
	77	Lubricant symbol, Aerovac 25, MIL-G-3278*
	78	Lubricant symbol, Texas HI-temp.,
	79	Lubricant symbol, Univis #90 oil*
	80	Lubricant symbol, DC-44 silicone, MIL-L-15719
	81	Lubricant symbol, NO-OX-ID #570-STD PS
	82	Lubricant symbol, NO-OX-ID #580-STD production
	83	Lubricant symbol, NO-OX-ID #586-Spec. AN-C-124*
	84	Lubricant symbol, NO-OX-ID #720*
	85	Lubricant symbol, MIL-G-81322 Mobil grease 28
	86	Lubricant symbol, NO-OX-ID #750M*
	87	Lubricant symbol, MIL-G-3545C BRB#2
	88	Lubricant symbol, DC-200 VISC, 1000 CSTKS. at 250°C*
	89	Lubricant symbol, Winsor L-245 oil, MIL-L-6085
	90	Lubricant symbol, Aeroshell #11, MIL-G-3278*
	91	Lubricant symbol, DC-33 silicone

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MFR: MARLIN-ROCKWELL CO DIV OF TRW INC (con:)

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Prefix	Suffix	Definition
	31	Lubricant symbol MIL-G-25537 Aero Shell #14
	32	Lubricant symbol Shell Alvania #3
	39	Lubricant symbol Aero Shell #16
	41	Lubricant symbol MIL-G-18709 Andok B
	42	Lubricant symbol MIL-G-25013 Royco 13D
	44	Lubricant symbol MIL-L-21260 Preservative Oil 30
	46	Lubricant symbol MIL-G-25013 Supermil ASU 31052
	49	Lubricant symbol MIL-G-18709 and MIL-G-24139 Regal AFB 2
	62	Lubricant symbol Andok 260
	92	Lubricant symbol Chevron SRL-Z
	93	Lubricant symbol, Univis #6 oil, MIL-L-6081*
	94	Lubricant symbol, aviation high-temperature grease #1, MIL-L-3545*
	95	Lubricant symbol, CB-600 grease, 14-G-8*
	96	Lubricant symbol, MIL-C-8188 Turbo oil P-16
	97	Lubricant symbol, SG-4410, MIL-L-3545*
	98	Lubricant symbol, L-281 oil, 14-O-20*
	99	Lubricant symbol, Beacon P-305, AXS-1169 MIL-L-16708*
	001A	Standard pressed steel retainer alternating finger
	002A	Standard pressed steel retainer finger types
	003A	Standard pressed steel retainer riveted
	003F	Pressed bronze retainer, two piece, riveted
	004C	Standard pressed bronze retainer (stayrod type A)*
	005A	Standard pressed steel retainer (stayrod type)
	006A	Standard pressed steel retainer (riveted)
	006F	Pressed bronze retainer, two piece, riveted
	007	Machined retainer, two piece, riveted, ball centered
	007A	Machined steel retainer, two piece, riveted, ball centered
	007B	Machined non-metallic (bakelite) retainer, two piece, riveted, ball centered
	007C	Machined bronze retainer, two piece, riveted, ball centered
	008	Machined retainer, two piece inner ring land riding
	008A	Machined steel retainer, two piece, riveted, inner ring land riding
	008B	Machined non-metallic (bakelite) retainer, two piece, riveted, inner ring land riding
	008C	Machined bronze retainer two piece, riveted, inner ring land riding
	009	Machined retainer, two piece, outer ring land riding
	010	Two piece cast riveted retainer
	011	Two piece pressed bridge type retainer
	012	Two piece pressed water wheel type retainer
	013	One piece pressed "Strom" retainer
	014	Machined retainer, one piece, ball centered
	014A	Machined steel retainer, one piece, ball centered
	014B	Machined non-metallic retainer, one piece, ball centered
	014C	Machined bronze retainer, one piece, ball centered
	015	Machined retainer, one piece, inner ring land riding
	015A	Machined steel retainer, one piece, inner ring land riding
	015B	Machined non-metallic (bakelite) retainer, one piece, inner ring land riding
	015C	Machined bronzed retainer, one piece, inner ring land riding
	016	Machined retainer, one piece, outer ring land riding
	017	One piece cast prong type retainer
	018	One piece cast back-to-back retainer
	019	One piece pressed snap-on heat treated retainer
	020	One piece pressed snap-on, soft (not heat treated) retainer
	021	One piece wire type retainer
	022	One piece pressed retainer (National purchased)
	023	Two piece prong type retainer
	024	One piece molded snap-on retainer
	025	One piece pressed retainer-for 7P6 (new)*
	026	Machined retainer, two piece, drive screw type, inner ring riding
	027	Machined retainer, one piece, ball centered, outside pitch diameter (new)*
	028	Machined retainer, one piece, snap-on type
	029	Individual coil spring separators

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MFR: MARLIN-ROCKWELL CO DIV OF TRW INC (con.)

CODE 38443

Prefix	Suffix	Definition
	030	One piece, pressed, snap-on, heat treated, indium flashed
	031	One piece, pressed, snap-on, heat treated, rolled in flange at bore
	032	One piece, investment, cast, riveted, riding gound, I.D. of outer
	034	Two piece pressed, riveted, submarine quality, sperical or elliptical pocket retainer
	035	Two piece pressed, riveted, riding I.D. of outer retainer
	039	Special feature code number (retainer)
	040	One piece pressed semi-socket retainer
	041	Two pieced pressed socket riveted retainer
	042	One piece, solid, alternate drilled pockets, peened retainer
	043	Two piece solid riveted retainer
	044	Two piece pressed box type retainer
	045	One piece pressed channel retainer
	046	One piece pressed (National purchased) retainer
	047	One piece solid, straight drilled pockets, peened retainer
	048	One piece solid molded retainer
	049	Two piece pressed box type retainer
	050	One piece wire type retainer
	051	One piece solid machined snap on retainer
	060	One piece solid bent inside fingers, non-separable, outer ring land riding retainer
	061	One piece solid bent inside fingers, separable, outer ring land riding retainer
	062	One piece, solid roller or peened, inside fingers, outer ring land riding retainer
	063	One piece, solid, thin web section, slotted outside lugs, bent, inner ring land riding
	064	One piece, solid, thick web section, slotted outside lugs bent, inner ring land riding retainer (new)*
	065	One piece, solid rolled or peened, outside lugs, inner ring land riding retainer
	066	Two piece, solid, riveted, straight web, outside diameter, milled pockets, roller centered retainer
	067	Two piece, solid, riveted, raised web outside diameter, milled pockets, roller centered retainer
	070	One piece, solid, bent inside fingers, non-separable inner ring land riding retainer
	071	One piece, solid, bent inside fingers, separable, inner ring land riding retainer
	072	One piece, solid rolled or peened inside fingers, inner ring land riding retainer
	073	One piece, solid, thin web section, slotted outside lugs, bent, outer ring land riding retainer
	074	One piece, solid, thick web section, slotted outside lugs, bent, outer ring land riding retainer (new)*
	075	One piece, solid peened outside lugs, outer ring land riding retainer
	076	Two piece, solid, riveted, straight web outside diameter, milled pockets, inner ring land riding retainer
	077	Two piece, solid, riveted, raised web outside diameter, milled pockets, inner ring land riding retainer
	086	Two piece, solid, riveted, straight web outside diameter, milled pockets, outer ring land riding
	087	Two piece, solid, riveted, raised web outside diameter, milled pockets, outer ring land riding
	090	Special retainer design (see detailed drawing)
	099	Retainer (cage) cover

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MFR: MARLIN-ROCKWELL CO DIV OF TRW INC (con.)

CODE 38443

Prefix	Suffix	Definition
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NOTE: Noise test and speed test symbols may be disregarded in analyzing bearing construction or special characteristics.
Dash numbers suffix to the basic bearing number designates deviation from standard.
How to read MARLIN-ROCKWELL ball bearing numbers:

EXAMPLE:

206SF03-06-A-006A-87-S-00000
206 S F (03 06 A 006A 87 S 00000 Specification code)
Basic bearing number
Super conrad
One shield
ABEC-3 tolerance
0004 inch total radial looseness (nominal)
Quiet
Standard pressed steel retainer
Lubricant MIL-G-3545C

*Obsolete designations

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MFR: MCGILL MFG. CO., INC.

CODE 39317

MOUNTED UNIT PREFIX	MOUNTED UNIT SUFFIX
C = Gray iron or gray iron pillow block.	L = Bearing insert is a metric size larger than normal for that particular bore size.
D = Double lock or ductile iron pillow block.	S = Bearing insert is a metric size smaller than normal for that particular bore size.
F = Flange	Z = No grease fitting or a plugged grease fitting hole.
H = Protected screw type welded take-up frame	
L = Low shaft centerline	
M = Malleable iron or malleable iron pillow block.	
N = Nickel plated housing	
P = Stamped steel or stamped steel pillow block	
PF = Piloted flange	
T = Take-up block	
V = Vertical type welded take-up frame	
W = Extra wide inner race	
2 = 2-bolt	
3 = 3-bolt	
4 = 4-bolt	
-10 = Low cost non-relubricatable ball bearing insert	
-15 = Low cost relubricatable ball bearing insert	
-25 = Standard duty ball bearing insert	
-35 = Medium duty ball bearing insert	

Examples: FP2-10-1

PFC4-25-1 1/4-S

NDLW-25-1-9/16

DD-35-1-1/2

Flange, stamped steel, 2-bolt, low cost non-relube bearing insert, one inch bore.
 Piloted flange, gray iron, 4-bolt, standard duty bearing insert, 1-1/4 inch bore, bearing insert is a 206 metric size (outer race O.D. = 2.4409 inch) which is smaller than normal for the 1-1/4 inch bore.
 Nickel plated, ductile iron, low shaft centerline, extra wide inner race, standard duty bearing insert, 1-9/16 inch bore.
 Ductile iron pillow block, double lock, medium duty bearing insert, 1-1/2 inch bore.

BEARING INSERT PREFIX

- B = Spherical O.D.
- C = Cylindrical O.D.
- D = Double lock (4 set screws)
- *ER = Cylindrical O.D. with snap ring and lube groove
- M = McGill bearing
- R = Reversed outer race (lube groove on opposite side)
- W = Extra wide inner race
- 10 = Low cost non-relubricatable ball bearing with Nylaplate seal
- 15 = Low cost relubricatable ball bearing with Nylaplate seal
- 25 = Standard duty relubricatable ball bearing with Nyla-K seal
- 35 = Medium duty relubricatable ball bearing with Nyla-K seal

BEARING INSERT SUFFIX

- L = Larger metric size than normal for that particular bore size.
- S = Smaller metric size than normal for that particular bore size

*The ER series bore sizes are given by the number of 1/16ths of an inch.

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MFR: MCGILL MFG. CO., INC. (con.)

CODE 39317

Examples: MBRW-25-13/16L McGill bearing, spherical O.D., reversed outer race, extra wide inner race, standard duty bearing, 13/16 inch bore, bearing insert of a larger metric size than normal for a 13/16 inch bore (i.e., the outer ring O.D. = 2.0472 inch which is the 205 metric size whereas the normal 13/16 inch bore bearing insert has an outer ring O.D. = 1.8504 inch which is the 204 metric size.
ER-16 Cylindrical O.D. with snap ring and lube groove 16-1/16 inch or a 1 inch bore
MCD-35-1-1/2 McGill bearing, cylindrical O.D., double lock, medium duty bearing insert, 1-1/2 inch bore.

SPECIAL MOUNTED UNITS

C-500 and up	Gray iron pillow block
CL-500 and up	Gray iron low shaft centerline pillow block
CS-500 and up	Cast steel pillow block
D-500 and up	Ductile iron pillow block
FC2-500 and up	Gray iron 2-bolt flange
FC3-500 and up	Gray iron 3-bolt flange
FC4-500 and up	Gray iron 4-bolt flange
FD2-500 and up	Ductile iron 2-bolt flange
FD4-500 and up	Ductile iron 4-bolt flange
PFC2-500 and up	Gray iron 2-bolt piloted flange
PFC4-500 and up	Gray iron 4-bolt piloted flange
PPFD4-500 and up	Ductile iron 4-bolt piloted flange
TC-500 and up	Gray iron take-up block
SMB-500 and up	Special McGill block
VTC-500 and up	Gray iron vertical take-up block

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MFR: MCGILL MFG. CO., INC. (con.)

CODE 39317

Prefix	Suffix	Definition
	A	1. CAMROL, cam follower, radial oil hole omitted in stem or plugged 2. SPHERE-ROL, with tapered bore plus adapter sleeve, locknut and lockwasher
AN	AL	Aluminum alloy retainer or separator
ASMO		SPHERE-ROL, large locknut (see "N" prefix) MULTIROL, single-row, outer race and roller assembly, self-aligning, spherical housing and O.D.
B	B	Ball bearing for pillow block (mfg. for Browning) CAMROL, cam follower, hexagonal hole replaces screwdriver slot in flange end of stem
BA		Annular ball bearing, single-row, counterbored outer ring, angular contact, contact angle 22 degrees to 32 degrees (this is an AFBMA designation)
BB		Special ball bearings
BC		Annular ball bearing, single-row, radial, non-loading groove self-contained (this is an AFBMA designation)
BH		Annular ball bearing, single-row, counterbored outer ring, radial (this is an AFBMA designation)
BM		Ball bearing for pillow block (mfg. for T.B. Wood)
BN		Annular ball bearing, single-row, counterbored outer ring, angular contact, contact angle 10 degrees to 22 degrees (this is an AFBMA designation)
BR		Special roller bearing
BT		Annular ball bearing, single-row, counterbored outer ring, angular contact, contact angle 32 degrees to 45 degrees (this is an AFBMA designation)
C+	C	Standard bearing, all external surfaces chrome plated CAMROL, with crown radius on outer ring O.D. (prefix letter before basic bearing type)
CF		CAMROL, cam follower, full compliment roller bearing, with integral stud
CFH		CAMROL, cam follower, full compliment roller bearing with integral high capacity stud
	CP	Standard bearing with chrome plated O.D., all other exposed surfaces, as mounted, cadmium plated
	CR	Stainless steel (corrosion-resisting)
CT		Special roller bearing utilizing center guided roller assembly
	CU	Copper alloy retainer or separator
CYR		CAMROL, yoke roller, full compliment roller bearing with inner race for yoke mounting.
	C1	SPHERE-ROL, indicates diametral clearance less than C2
	C2	SPHERE-ROL, indicates diametral clearance less than standard
	C3	SPHERE-ROL, indicates diametral clearance larger than standard
	C4	SPHERE-ROL, indicates diametral clearance larger than C3
	D*	Roller bearing precision matching in groups of two or more (*, number in this position indicates how many in the matched group when three or more are matched)
	DB	Obsolete, see "R"
	DF	Obsolete, see "U"
	DRY	No lubrication, preservative optional
	DS*	Roller bearing super precision matching in groups of two or more (*, number in this position indicates how many in the matched group when three or more are matched)
	DT	Obsolete, see "T"
	DU	Universally duplexed bearings
	E	SPHERE-ROL, indicates endplay for shaft expansion
+E		CAMROL, cam follower, eccentric bushing pressed on stem
EMRF		CAGEROL, cam follower, heavy section outer with inner ring
F+		Pillow block series, indicates 4-bolt base on sizes not already having that feature (prefix letter before basic pillow block type)

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 5 January 1977

MFR: MCGILL MFG. CO., INC. (con.)

CODE 39317

Prefix	Suffix	Definition
	F	1. Airframe bearing, lubrication hole in outer race 2. Pillow block series, indicates bearing fixed in housing (not floating) 3. Single shield (obsolete suffix)
	FE	Iron alloy retainer or separator
	FF	Double shield (obsolete suffix)
	FFG	Double shield with snap ring and groove on outer ring O.D. (obsolete suffix)
	FG	Single shield, with snap ring and groove on side opposite shield (obsolete suffix)
	FG-1	Single shield, with snap ring and groove on same side as shield (obsolete suffix)
	G	1. Snap ring and groove on outer ring O.D. (obsolete suffix) 2. MI inner, (, number in this position indicates O.D. larger than standard by 1/32 increments)
	GH	Snap ring with hook and groove on outer ring O.D. (obsolete suffix)
	GO	Snap ring groove only on outer ring O.D. (obsolete suffix)
GR		GUIDEROL, heavy duty roller bearing, self-contained, outer race and center guided roller assembly. MT series - inch series, and CT series - metric series. No inner race.
GRI		GUIDEROL, with separable inner race. Metric sizes.
GTR		Drawn cup roller bearing, with one piece retainer, single-row or rollers, no inner, open ends, precision ground O.D. regular roller series.
GTRH		Drawn cup roller bearing, one piece retainer, single-row of rollers, no inner race, open ends, precision ground O.D., large roller series.
GTRL		Drawn cup roller bearing, one-piece retainer, single-row of rollers, no inner race, open ends, precision ground O.D., extra large roller series.
H+		Cam follower, stem heat treated for high strength (prefix letter before basic bearing number)
I		Inner race only for GR-CT series, GUIDEROL roller bearing
		MULTIROL, single-row, inner race and roller assembly, end plate type (obsolete, see "SR")
IRD		MULTIROL, double-row, inner race and roller assembly, end plate type (obsolete, see "SR")
	J	Airframe bearing, outer O.D. and O.D. corners chrome plated and other exposed surfaces cadmium plated as mounted
	K	SPHERE-ROL, with tapered bore (1:12 taper on diameter)
	KE	SPHERE-ROL, tapered bore, expansion feature
	KM	K-MONEL metal
	LH	Left hand thread for CF cam followers of standard catalog item
+L		CAMROL, with Lubri-Disc feature
	LER	Pillow block series, labyrinth seal ring (pillow block component part)
	M	Maximum capacity or loading groove type ball bearing
MI		Inner race only for GR, MO, MR series bearings
MO		MULTIROL, full type roller bearing, single-row outer race and roller assembly, solid lip type
MR		1. CAGEROL, heavy duty roller bearing, one piece retainer, single-row of rollers, no inner race, regular roller series 2. CAGEROL, special bearing
MRF		CAGEROL cam follower, CAGEROL bearing with heavy outer ring
MRH		CAGEROL, heavy duty roller bearing, one-piece retainer, single-row of rollers, no inner race, large roller series
MRN		CAGEROL, heavy duty roller bearing, one-piece molded retainer, single-row of rollers, no inner race, regular roller series
MRS		CAGEROL, heavy duty roller bearing, one-piece retainer, single-row of rollers, no inner race, regular roller series, non-precision bearing
MT		GUIDEROL, inch series
N		SPHERE-ROL, lock-nut (see "AN" prefix)
	N	Narrow

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McGILL MFG. CO., INC. (con.)

CODE 39317

Prefix	Suffix	Definition
NBC		Airframe heavy duty type roller bearing, non-separable, single-row of rollers
NBE		Airframe heavy duty roller bearing, self-aligning, single-row of rollers
NBK		Airframe heavy duty type roller bearing, self-aligning double-row of rollers
NBL		Airframe heavy duty type track roller, roller bearing, nonseparable, double-row of rollers
	NM	Narrow-maximum or loading groove type ball bearing (obsolete suffix)
	NS	Non-separable (self-contained)
NYR		Molded synthetic retainer and roller assembly only
OD		MULTIROL roller bearing, double-row, outer race and roller assembly, end plate type (obsolete, see "SR")
OS		MULTIROL, roller bearing, single-row, outer race and roller assembly, end plate type (obsolete, see "SR")
	P	1. Standard bearing, all external surfaces cadmium plated 2. Airframe bearing, exposed surfaces cadmium plated as mounted 3. Pillow block series, indicates plug to close one end of housing
	PC	Synthetic retainer or separator
	PEN	Black oxide finish
	PT	Synthetic tire on bearing O.D.
	R	1. Radially fitted Gurney type bearings, other 7000 series (obsolete) 2. Paired bearings duplex mounted back-to-back
R		1. CAMROL, retainer type (letter must be used with basic CAMROL prefix) 2. Retainer, one-piece, single-row, machined
RD		MULTIROL, self-contained, double-row, outer race and needle assembly, (end plate type) and inner race
RF		Cylindrical roller bearing, one lip outer ring, two lip inner ring, rollers and cage, outer ring separable
RJ		Cylindrical roller bearing, one lip inner ring, two lip outer ring, rollers and cage, inner ring separable
MI		Inner race (with reduced O.D.) only for GR, MO, MR series bearings
RN		Cylindrical roller bearing, two lip inner ring, cylindrical outer ring, roller and cage, separable outer ring
RP		Retainer, two-piece, single-row, press formed
RS		1. MULTIROL, needle bearing, self-contained, single-row, outer race and needle assembly, (end plate type) and inner race 2. Cam follower, aircraft type
	RS	CAGEROL or GUIDEROL, sealed on one side, (seal lip outside of bearing)
	RSS	CAGEROL or GUIDEROL, sealed on both sides, (seal lip to outside of bearing)
RT		Cam follower, aircraft type
RU		Cylindrical roller bearing, two lip outer ring, cylindrical inner ring, roller and cage, separable inner ring
S		1. SPHERE-ROL, tapered adapter sleeve 2. PILLOW BLOCK SERIES, indicates cast steel housing (letter must be used with basic pillow block prefix)
	S	1. CAGEROL or GUIDEROL, sealed on one side (seal lip to inside of bearing) 2. CAMROL, sealed version 3. SPHERE-ROL, sealed on one side (seal on small bore side with tapered bore) 4. MI inner (, number in this position indicates O.D. smaller than standard by 1/32 increments)
SAF		Pillow block series, split housing with SPHERE-ROL bearing (housing cast iron, see "S" prefix for cast steel)
SB		SPHERE-ROL, single-row spherical roller bearing
SC		Ball bearing for pillow block (mfg. for Dodge)
SBE		SPHERE-ROL, with eccentric locking collar for pillow block mounting
SDAF		Pillow block series, heavy duty split housing with SPHERE-ROL bearing - (housing cast iron - see "S" prefix for cast steel)
SE		Special "MO" and related "MI" bearings (includes all solid lip bearings)

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MFR: MCGILL MFG. CO., INC. (con.)

CODE 39317

Prefix	Suffix	Definition
SFBA SFBE SK	SEL	Bearing selected from stock for special tolerance range or feature SPHERE-ROL, adapter mounted in flange pillow block mounting
SNW SMO	SL	Special, all other bearings or parts of special design SPHERE-ROL, sealed, large bore side only with tapered bore SPHERE-ROL, complete taper adapter unit (sleeve, nut, locking washer) MULTIROL, with spherical O.D.
SPBA SPBE	SOL	"RS" dimensional MO bearings SPHERE-ROL, adapter mounted, in base mounted pillow block SPHERE-ROL, series bearing with eccentric locking collar, in base mounted pillow block
SR	SR	Special RS, RD, OS, OD, IR, IRD bearings
	SRS	Pillow block series, stabilizing ring (pillow block component part) CAGEROL or GUIDEROL, sealed both sides (one seal facing inward, other seal facing outward)
	SS	1. CAGEROL or GUIDEROL, sealed both sides (seal lips to inside of bearing) 2. SPHERE-ROL, both sides sealed
STR	T	Steel retainer and roller assembly only 1. CAMROL, cam follower, axial lubrication hole in stem (special feature on small cam followers) 2. Ball bearings duplex mounted in tandem 3. Retainer, steel, tufftridad
	T*	SPHERE-ROL, Teflon seal (*, number in this position indicates seal configuration)
TR		Drawn cup roller bearing, one-piece retainer, single-row of rollers, no inner race, open ends, regular roller series.
TRH		Drawn cup roller bearing, one-piece retainer, single-row of rollers, no inner race, open ends, large roller series
TRL		Drawn cup roller bearing, one-piece retainer, single-row of rollers, no inner race, open ends, extra large roller
	U	Duplex mounted, face-to-face
W	UNA	Unassembled bearing with all components SPHERE-ROL, lock-washer
	W	Wide width
	W/O	Without a standard component (seals for example)
	W20	SPHERE-ROL, with lubrication holes in bearing O.D.
	W22	SPHERE-ROL, with selected O.D.
	W33	SPHERE-ROL, with annular groove and lubrication holes in O.D.
	Y*	1. Airframe bearing, annular lubrication groove in bore and lube holes in inner ring 2. See below
YR		Special CYR bearings
	Z	Airframe bearing, annular lubrication groove in O.D. and lube holes in outer ring
	0	SPHERE-ROL, indicates standard diametral clearance
	9	CAMROL, indicates close running clearance between outer ring counter- bore and flange O.D. (0.003 inch)
	10	CAGEROL, retainer not penetrate treated
	20	MULTIROL, new design, spring steel rings replace rolled lips
	30	MULTIROL, MI inners, old style large diameter race
	100	CAGEROL, split into two halves

+ - Indicates letter must be used with a basic prefix (EXAMPLE: +L = CFL where
CF is the basic prefix)

The above does not include lubrication coding or component parts coding

* (2) SPHERE-ROL indicates "Lambda" seal, (*, number in this position
indicates seal configuration. Code letter may also be used within
configuration description.)

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CODE 40920

A: MINIATURE BEARING DIV MPB CORP

Prefix	Suffix	Definition
No Symbol		SAE 52100 chrome alloy steel material
	A	Pivot bearing, through shaft
	C	Radial, L-type retainer
	DB	Back-to-back mounting
	DF	Face-to-face mounting
	DT	Tandem mounting
	DU	Universal mounting
	E	Extended inner ring
	F	Flanged outer ring
	H	Single shield
	HH	Double shield
	LD	No lubrication. Dry
	LG-10	Esso Standard Oil Esso rust ban 343 AN-C-124(3)
	LG-20	Esso Standard Oil Co. Beacon 325
	LG-31	MPB Minapure
	LG-32	Lehigh Chemical Co. Anderol L-793
	LG-38	Esso Standard Oil Co. Andock B MIL-G-18709
	LG-39	Esso Standard Oil Co. Andock C
	LG-40	Dow Corning DC-33 (silicone) (light)
	LGF	Followed by numbers indicates specific grease to be used in film greased bearings.
	LGP	Followed by numbers indicates the specific grease to be used in grease-plating surfaces
	LO-1	Anderson Oil Co. Windsor Lube L-245X MIL-L-6085
	LO-2	Lehigh Chemical Co. Anderol L-401D MIL-L-6085
	LO-3	Shell Oil Co. Aeroshell fluid 12 (E+W) MIL-L-6085,
	LO-4	Eclipse-Pioneer P-10 MIL-L-6085
	LO-6	Esso Standard Oil Co. Univis P-38 MIL-L-6085
	LO-11	Esso Standard Oil Co. Esso Aviation inst. oil MIL-L-7870
	LO-12	Texaco, Inc. low temperature oil MIL-L-7870
	LO-13	Shell Oil Co. Aeroshell fluid #3 (E) MIL-L-7870
	LO-14	Lehigh Chemical Co. Anderol L-281 ORD-14-0-20
	LO-30	Eclipse-Pioneer P-11
	LOC	Followed by numbers indicates specific oil lubricant to be used, then centrifuged.
	LOV	Followed by numbers indicates the specific lubricant to be vacuum impregnated into the retainer. Retainer must be either paper or cotton base phenolic.
	LY-4	Anderson Oil Co. Windsor lube LS-252 MIL-L-17353
	LY-5	General Electric GE Versilube F-50
	LY-7	Dow Corning DC-200 (20) fluid
	LY-11	Supermil M-100 (silicone)
	LY-13	Dow Corning DC-44 (light) silicone, MIL-G-15719
	LY-15	General Electric GE Versilube G-300
	LY-17	Texaco, Inc. Texaco Unitemp 500
	LY-21	Dow Corning DC-510(50) fluid
	LY-22	Dow Corning DC-200(10) fluid
	LY-24	Esso Standard Oil Teresso V-78
	LY-28	General Electric GE silicone oil F44 (MIL-S-81087, type II)
	LY-36	Dow Corning DC-33 (fluid) silicone
	LY-37	Dow Corning DC-33 (medium) silicone
	LY-39	Dow Corning DC-200 (12,500 fluid)
	LY-40	Dow Corning DC-510 (500) fluid
	LY-41	Lehigh Chemical Co. Anderol L-423
	LY-48	1 Part GE Versilube G-300 (LY-15) with 8 parts GE Versilube F-50 (LY-5). Apply with syringe.
	LY-49	Lehigh Chemical Co. Anderol L-451
	LY-51	Dow Corning DC-510 (1000 CS)
	LY-52	Dow Corning DC-510 (100,000 CS)
	LY-53	Dow Corning DC-200 (60,000 CS)
	LY-60	Dow Corning FS 1265 fluid

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MFR: MINIATURE BEARING DIV MPB CORP (con.)

CODE 4092

Prefix	Suffix	Definition
	LY-167	SUPERMIL A72832 (MIL-G-23827A)
	LY-185	KG80
	LY-189	KRYTOX 240 AC
	LY-196	Aeroshell 7 (MIL-G-23827A)
	LY-231	Mobil 28 (MIL-G-81322A)
	LY-250	NRL MB-20B
	LY-252	SRG 160
	LY-254	XRL 743A
	M	High speed, non-separable (reinforced phenolic separator)
	MB	High speed, inner ring separable (reinforced phenolic separator)
	MC	High speed, Conrad-type
	MCD	High speed, Conrad-type Minapar retainer (plastic)
	MCJ	Self lubricating, Conrad type
	MCK	High speed, Conrad type MINSPAR II retainer (plastic)
	MR	High speed, full race
N		Beryllium copper material (non-magnetic bearings)
	N	Narrower than standard
	O	Shield or seal on side opposite flange
	P	Followed by two numbers indicates radial play in ten thousandths of an inch, i.e: P35 designates radial play of -0.0003 to 0.0005 inches
	PR	Pivot bearing, closed end
	Q	Followed by a number indicates peak starting torque in hundreds of mg-mm. (Example: Q15 indicates bearing with 1500 mg-mm peak starting torque.)
	R	Ribbon retainer
S		AISI 440C stainless steel material
	ST	Teflon slug separator
	T	Thrust bearing
	V	Followed by a number indicates peak running torque in hundreds of mg-mm. (Example: V13 indicates a bearing with peak running torque of 1300 mg-mm.)
	W	Wider than standard
	Z	Single seal
	ZD-1-1	Bore tolerance +0.0000 O.D. tolerance +0.0000 - .0001 - .0001
	ZD-1-2	Bore tolerance +0.0000 O.D. tolerance -0.0001 - .0001 - .0002
	ZD-2-1	Bore tolerance -0.0001 O.D. tolerance +0.0000 - .0002 - .0001
	ZD-2-2	Bore tolerance -0.0001 O.D. tolerance -0.0001 - .0002 - .0002
	ZD-A-A	Bore tolerance +0.000000 O.D. tolerance +0.000000 - .000050 - .000050
	ZD-A-B	Bore tolerance +0.000000 O.D. tolerance -0.000050 + .000050 - .000100
	ZD-A-C	Bore tolerance +0.000000 O.D. tolerance -0.000100 - .000050 - .000150
	ZD-A-D	Bore tolerance +0.000000 O.D. tolerance -0.000150 - .000050 - .000200
	ZD-B-A	Bore tolerance -0.000050 O.D. tolerance +0.000000 - .000100 - .000050
	ZD-B-B	Bore tolerance -0.000050 O.D. tolerance -0.000050 - .000100 - .000100
	ZD-B-C	Bore tolerance -0.000050 O.C. tolerance -0.000100 - .000100 - .000150
	ZD-B-D	Bore tolerance -0.000050 O.D. tolerance -0.000150 - .000100 - .000200
	ZD-C-A	Bore tolerance -0.000100 O.D. tolerance +0.000000 - .000150 - .000050

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IR: MINIATURE BEARING DIV MPB CORP (con.)

CODE 40920

Prefix	Suffix	Definition
	ZD-C-B	Bore tolerance -0.000100 O.D. tolerance -0.000050 - .000150 - .000100
	ZD-C-C	Bore tolerance -0.000100 O.D. tolerance -0.000100 - .000150 - .000150
	ZD-C-D	Bore tolerance -0.000100 O.D. tolerance -0.000150 - .000150 - .000200
	ZD-D-A	Bore tolerance -0.000150 O.D. tolerance +0.000000 - .000200 - .000050
	ZD-D-B	Bore tolerance -0.000150 O.D. tolerance -0.000050 - .000200 - .000100
	ZD-D-C	Bore tolerance -0.000150 O.D. tolerance -0.000100 - .000200 - .000150
	ZD-D-D	Bore tolerance -0.000150 O.D. tolerance -0.000150 - .000200 - .000200
ZDM		Graded for pairs of bearings having matched O.D.'s and bores
ZO		Graded O.D.'s only
ZZ		Double sealed bearing
-5		Anti-Friction Bearing Mfg. Association class 5P
-7		Anti-Friction Bearing Mfg. Association class 7P
-9		Anti-Friction Bearing Mfg. Association class 9P
-3		Anti-Friction Bearing Mfg. Association class 3
-1		Anti-Friction Bearing Mfg. Association class 1

How to read miniature bearing numbers:

Example: MPB Part No. S518MBH-5 DB2 P58 ZDM Q18 LOV2
 S Material stainless steel
 518 Bearing size (5/16 O.D. x 1/8 I.D.) The first digit is the O.D. size in sixteenths of an inch, the remaining digits give the bore size.
 MB Inner ring separable
 H Single shield
 -5 Bearing to meet ABEC-5P tolerances
 DB2 Duplexed back to back mounting under a 2 pound preload
 P58 Radial play of each bearing, before preloading of 0.0005 to 0.0008
 ZDM Grading of pairs having matched O.D. and bores
 Q18 Starting torque - 1800 mg-mm
 LOV2 Vacuum impregnated retainer with LO-2 lubrication

Special bearing configurations are indicated by an A, B, D, E as the case would be with a sequence number following. Numbers run from 1 to 999 then shift to next letter in the alphabet.

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MFR: NEW DEPARTURE HYATT BEARING DIVISION GENERAL MOTORS CORP

CODE 43334

Prefix	Suffix	Definition
<u>ROLLER BEARINGS</u>		
A		Cylindrical inner ring, cylindrical roller bearing (e.g. A1205) variants from standard are labelled AB, AC, etc.
A		Inner ring only, self-aligning roller bearing, angular contact
A	TS	Cylindrical roller bearing: cylindrical outer ring with cage, roller complement and two roller retainment rings, cylindrical separable inner ring
A-62	TS	Cylindrical roller bearing: cylindrical outer ring with double-row of caged rollers and two roller retainment rings, separable cylindrical inner ring
A	WB	Cylindrical roller bearing: two lip outer ring, separable cylindrical inner ring, with retainer (cage)
A	Z	Self-aligning roller bearing, non-separable, angular contact type, barrel shaped rollers
A	ZK	Self-aligning roller bearing, non-separable, angular contact type, barrel shaped rollers
B		Rollers and cage contained by inner ring, cylindrical roller bearing
B		Inner ring only, self-aligning roller bearing, angular contact type
B	B	Rollers and cage contained by outer ring, cylindrical roller bearing
B	YK	Self-aligning roller bearing, non-separable, angular contact type, barrel shaped rollers
BU		Cylindrical roller bearing, two lip inner ring, cage and rollers, not outer ring
BU	L	Cylindrical roller bearing, one lip outer ring, two lip inner ring, rollers and cage, outer ring separable
BU	Z	Cylindrical roller bearing, cylindrical outer ring, two lip inner ring, rollers and cage, outer ring separable
C		Journal roller bearing, outer ring and roller assembly inner ring omitted
CD		Double wide series journal roller bearing without inner 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 race 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, outer ring omitted
EN		Journal roller bearing, narrow series, outer ring omitted
	F	Outer ring O.D. dowel hole.
G		Inner race only, self-aligning roller bearing, angular contact type
	G	Outer ring O.D. snap ring groove
H		Inner ring only, self-aligning roller bearing, angular contact type
HP		Journal roller bearing, roller assembly and mill treated, planished, split type, outer ring
IR		Inner ring, journal roller bearing
J		Separable lip, inner ring cylindrical roller bearing (see JRN and RN)
JRN		Inner ring, cylindrical roller bearing, two lipped, one lip separable
JRN	WB	Cylindrical roller bearing, two lip outer ring, two lip inner ring, one lip of inner ring separable retainer (cage) type
KA		Inner ring and roller assembly, self-assembly, self-aligning roller bearing, angular contact type barrel shaped rollers
	KA	Same as prefix KA except for outer ring
KA	Z	Self-aligning roller bearing, angular contact type, barrel shaped rollers completed with outer and inner ring and roller assembly, outer ring separable

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R: NEW DEPARTURE HYATT BEARING DIVISION GENERAL MOTORS CORP (con.)

CODE 43334

Prefix	Suffix	Definition
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
KH		Self-aligning roller bearing, angular contact, barrel shaped rollers, separable outer ring
KL		Inner ring and roller assembly, self-aligning roller bearing, angular contact type, barrel shaped rollers
KL	W	Self-aligning roller bearing, angular contact, barrel shaped rollers, separable outer ring
L		Inner ring only, self-aligning roller bearing, angular contact type
M	L	One lip outer ring, cylindrical roller bearing
M	M	Journal roller bearing, special width, wound rollers
MC		Full complement of rollers, on retainer (cage, separator), cylindrical roller bearing
MIR		Special width journal roller bearing without inner ring, wound rollers
MOR		Inner ring, special width journal roller bearing
MRA		Outer ring, special width, journal roller bearing
N		Roller assembly, journal roller bearing, wound rollers, special width
NC		Journal roller bearing, narrow series
NIR		Narrow series journal roller bearing without inner ring
NOR		Inner ring journal roller bearing, narrow series
NRA		Outer ring journal roller bearing, narrow series
PRR	WB	Roller assembly, journal roller bearing, narrow series
OR		Cylindrical roller bearing, two lip outer ring, two lip inner ring, one lip of inner ring separable and extends beyond outer ring retainer (cage type)
P		Outer ring journal roller bearing
P		Separable inner ring lip, adapted for use with RR type inner ring (see PRR and RR)
P		Precision grade RBEC-5 variants of higher accuracy are symbolized PA, PB, etc. in order of their occurrence
PA		See suffix P
PB		See suffix P
PRR		Inner ring, cylindrical roller bearing, two lipped, one lip separable and extended
PRR	WB	Cylindrical roller bearing, two lip outer ring, two lip inner ring, one inner ring lip separable and extended
R		One lipped inner ring, cylindrical roller bearing
R	TS	Cylindrical roller bearing, one lip inner ring, cylindrical outer ring with two roller retainment rings, cage (retainer) type

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MFR: NEW DEPARTURE HYATT BEARINGS DIVISION MOTORS CORP (con.)

CODE 43334

Prefix	Suffix	Definition
R	YS	Cylindrical roller bearing, one lip outer ring with one roller retainment ring, one lip inner ring cage (retainer) type
R	WB	Cylindrical roller bearing, two lip outer ring, one lip inner ring cage (retainer) type
RA		Roller assembly, journal roller bearing
RN		Inner ring, cylindrical roller bearing, one lip adapted to receive separable second "J" type lip--see JRN prefix
RR		Inner ring, cylindrical roller bearing, adapted to receive separable "P" type lip (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
SD		Special dimensioned 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
SIR		Special dimensions, inner ring 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 ring
	T	Cylindrical outer ring, cylindrical roller bearing, with two roller retainment rings
T		Notched inner race construction, journal roller bearing
TA	Z	Self-aligning roller bearing, double-row of rollers, non-separable, angular contact type, barrel shaped rollers
TM		Journal roller bearing, notched inner ring construction, special width
	TM	Cylindrical roller bearing, cylindrical outer ring with two roller retainment rings, no inner ring, full complement of rollers
TMIR		Notched inner race, journal roller bearing, special width
	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 lipped inner ring cylindrical roller bearing
U	TM	Cylindrical roller bearing, two lip inner ring, cylindrical outer ring with two roller retainment rings, full complement of rollers
U	TS	Cylindrical roller bearing, two lip inner ring, cylindrical outer ring with two roller retainment rings, cage (retainer) type
U	W	Cylindrical roller bearing, two lip inner ring, two lip outer ring, retainer (cage type), non-separable
U	YM	Cylindrical roller bearing, two lip inner ring, one lip outer ring with one roller retainment ring, full complement of rollers
U	YS	Cylindrical roller bearing, two lip inner ring, one lip outer ring with one roller retainment ring, cage (retainer) type

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NR: NEW DEPARTURE HYATT BEARINGS DIVISION GENERAL MOTORS CORP (con.)

CODE 43334

Prefix	Suffix	Definition
W	W	Journal roller bearing, wide series (200 series only)
	W	Two lip outer ring, cylindrical roller bearing
	WB	Outer ring only, self-aligning roller bearing, angular contact type
WIR		Cylindrical roller bearing, two lip outer ring, cage (retainer) type, no inner ring
		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 lip outer ring, cylindrical roller bearing, with one roller retainment ring
	Y	Outer race only, self-aligning roller bearing, angular contact type
	YM	Cylindrical roller bearing, one lip outer ring with one roller retainment ring, no inner ring, full complement of rollers
	YS	Cylindrical roller bearing, one lip outer ring with one roller retainment ring, cage (retainer) type, no inner ring
	Z	Cylindrical outer ring, cylindrical roller bearing
	Z	Outer ring only, self-aligning roller bearing, angular contact type
	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

How to read NDH metric cylindrical roller bearing numbers:

EXAMPLE:

A1305TS

A 1305 TS

A-TS Cylindrical roller bearing, cylindrical outer ring with roller complement, separator and retainment rings, cylindrical separable inner ring
 Basic bearing number

EXAMPLE:

BU1307Z

BU 1307 Z

BU-Z Cylindrical roller bearing, separable cylindrical outer ring, two lip inner ring, rollers and cage.
 Basic bearing number

(Above does not apply to journal, wound, barrel or taper series)

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MFR: NEW DEPARTURE HYATT BEARINGS DIVISION GENERAL MOTORS CORP (con.)

CODE 43334

Prefix	Suffix	Definition
<u>BALL BEARINGS</u>		
<u>A</u>		External garter spring seal - pumpshaft, impeller end.
<u>A</u>		Adapter bearing, no seals, industry standard widths, eccentric locking collar.
	A	Corrosion preventive compound standard slush
	A	Dimensional and/or internal deviation when suffixed to standard bearing number
	Al	Al grade steel ball, AFBMA grade 25 tolerances
AG		Agricultural bearing
AB		Adapter bearing with wide I.R., industry standard widths, set screw locking type.
AS		Disc Harrow bearing with agricultural type seal.
	AX	Lubricant-MIL-G-10924
B		Internal garter spring seal - pump shaft.
	B	Dimensional and/or internal deviation when suffixed to standard bearing number
	B	Lubricant MIL-G-18709
	BC	Lubricant MIL-G-3545
	BW	Rust preventive slush
	BX	Lubricant-MIL-G-7421
C		Metal slinger-type seal
	C	Dimensional and/or internal deviation when suffixed to standard bearing number
	C	Sodium soap grease - Andok "C"
CB		Conveyor roll bearing. ~A special ball bearing permanently sealed and designed for use in conveyor roll assemblies
CF		Cam follower bearing
CS		Conveyor stub shaft
	CJ	Lubricant-MIL-G-23827
CT		Clutch throwout bearing
CWC		Metal slinger type seal and wide outer ring
D		Bearing with two seals of metal slinger and felt construction (rear wheel application)
	D	Dimensional and/or internal deviation when suffixed to standard bearing number
	DB	Duplex bearing, back-to-back mounting. A matched pair of angular contact bearings with adjacent outer and inner ring faces flush ground to preload requirements.
	DF	Duplex bearing, face-to-face mounting a matched pair of angular contact bearings with adjacent outer and inner ring faces flush ground to preload requirements
	DT	Duplex bearing, tandem mounting. A matched set of angular contact bearings with all bearing faces flush ground to preload requirements for universal mounting in tandem (DT), back-to-back (DB), or face-to-face (DF)
	E	Low temperature synthetic base grease conforming to MIL-G-3278
	E	Dimensional and/or internal deviation when suffixed to standard bearing number
EX		Experimental (may never have been produced)
F		Full complement of balls, retainerless type bearing
F		Flush type angular contact bearing designed to support primarily radial load
	F	Bearing packed 100 percent full of specified grease
FL		Pressed metal flange mount, used in pairs on a spherical O.D. bearing
G		Outer ring O.D. groove other than snap ring (lubrication groove, etc.) (Use same description as suffix D above)
	G	Angular contact bearing, 25 degree angle of contact (0L00 and 20000 series)
H		Angular contact bearing, 25 degree angle of contact (0L00 and 20000 series)
J		Snap on inner ring (angular contact bearings)
	J	Instrument oil MIL-L-6085
	J	Special features
	L	Loose internal fit-up or axial play (end-play)-radial type bearings

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TR: NEW DEPARTURE HYATT BEARINGS DIV. GENERAL MOTORS CORP (con.)

CODE 43334

Prefix	Suffix	Definition
	L	Light preload (duplexed angular contact type bearings-follows suffixes DB, DF or DT)
LC		Adapter bearing shipped without eccentric collar.
	LIA	Loose internal fit-up (L), ABEC-1 tolerances (1), rust preventive slush (A)
	LR	Loose radial clearance (internal fit-up) (AFBMA symbol 3)
MG		Most guide bearing series
	MR	Minimum radial internal clearance (AFBMA symbol 2)
N		Flanged outer ring
	N	Extra-loose end play
ND		Magneto bearing (separable type)
NF		Flanged outer ring, flush type angular contact bearing designed to support primarily radial load
NM		Separable flanged outer ring, angular contact bearing
P		Pump shaft bearing. Seal prefix before bearing (eg. 88P, 99PP, 98P, A99P, AB9P, etc.)
PF		Agricultural idler unit for flat belt
PV		Agricultural idler unit for V-belt
	P	Followed by a number indicates wrap/pack variation. Consult NDH for specific case.
	PX	Steel ball AFBMA grade 10
Q		Non-metallic separator (retainer)
R		Retainer type, inch series
R		Relubrication feature
RA		Adapter bearing type A with relube holes, no seals.
RAS		Heavy duty disc harrow seal bearing with relube holes in O.D. of outer ring.
RFL		Pressed metal flange pair with lubrication fitting used on relube type spherical O.D. bearing.
RGA		Adapter bearing RA plus relube groove.
RGTA		Adapter bearing RTA plus relube groove
RGZA		Adapter bearing RZA plus relube groove
RGWA		Adapter bearing RWA plus relube groove
RGWAB		Adapter bearing RWAB plus relube groove
RS		Removable shield(s), shielded bearing
RTA		Adapter bearing same as TA except with relube holes on O.D.
RW		Rear wheel bearing.
RWA		Adapter bearing, WA except with relube holes on O.D. on side opposite eccentric collar.
RWAB		Adapter bearing, WAB except with relube holes on O.D. on side opposite eccentric collar.
RWE		WE adapter bearing with relube holes on O.D. on side opposite eccentric collar
RZA		Adapter bearing ZA except with relube holes on O.D. on side opposite eccentric collar.
R88A		Sleeve and nut type adapter bearing with provision for injection relubrication.
	S	Special internal fit-up (radial bearing)
	S	Special preload, angular contact bearing
SR		Stainless steel retainer
SS		Stainless steel bearing
T		Identifies bearing assembled with a notch-riding Armor-Gard seal other than adapter or cam follower bearing.
	T	Tight internal fit-up (radial bearing)
	T	Heavy preload (angular contact bearing)
TA		Adapter bearing, type A with armor-gard seals.
TM		Textile bearing, miscellaneous
TP		Textile pulley bearing
TS		Textile spindle bearing
U		Single angular contact bearing duplex ground for universal mounting back-to-back, face-to-face or in tandem

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MFR: NEW DEPARTURE HYATT BEARINGS DIV. GENERAL MOTORS CORP (con.)

CODE 43334

Prefix	Suffix	Definition
V		Bronze machined separator (retainer)
	V	Snap ring located on opposite side from standard
	W	Inwardly convergent contact angle (double-row bearing)
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 outer ring on sealed bearing
WD		Separator (retainer), pressed bronze or bronze-clad steel ring controlled
WE		Adapter bearing with wide I.R., NDH width O.R., land riding seals and seal guards eccentric locking collar
X		Freer seal fit-up (88000 series propeller shaft bearings)
	X	Standard end play or inter fit-up (radial type bearings)
	X	Medium preload (angular contact type bearings)
	X1A	Standard internal fit-up (X), ABEC-1 tolerances (1), rust preventive slush (A) Freer seal fit-up (88000 series propeller shaft bearings)
XD		Freer seal fit-up (88000 series propeller shaft bearings)
	XR	Standard internal fit-up (radial play) (AFBMA symbol O)
	Y	Low speed noise test (follows internal fit-up or preload symbol)
Z		Removable molded synthetic rubber notch riding seals.
ZA		Adapter bearing, type A with Senti-seals.
	#	No preload requirement (single angular contact bearing only, not used for duplex mounting)
	1	ABEC-1 tolerances
	3	ABEC-3 tolerances
4		Snap ring mounted on outer ring of bearing
	5	ABEC-5 tolerances
7		Single shielded bearing
	7	ABEC-7 tolerances
8		Single sealed bearing (labyrinth type felt seal)
9		Single sealed bearing (synthetic rubber contact type seal)
	9	ABEC-9 tolerances (ultra-precision tolerances)
	9	Fingerprint remover process
77		Double shielded bearing
88		Double sealed bearing (labyrinth type felt seals)
99		Double sealed bearing (synthetic rubber contact type seals)

ADDITIONAL LUBRICANT SUFFIXES

CO	Rust preventive MIL-C-11796, class 3
CY	SUPERMIL M-40 grease
DR	SUPERMIL M-100 grease
DU	#1996 UNITEMP 500 grease
FC	ANDOK 260 grease
FD	VERSILUB G-300 grease
FT	Preservation oil, MIL-C-8188
FX	Grease, MIL-G-15719
HA	Grease MIL-G-18709
HB	Ship bearing dry (No lube)
HE	RYKON #2 grease
KE	ALVANIA EP-2 grease
KJ	Grease, MIL-G-25013
KW	Grease, MIL-G-3545
LD	Grease, MIL-G-3545
LM	DTE 797 turbine oil
MS	Turbine oil, MIL-L-23699
MV	Grease, MIL-G-81322
MZ	SUPERMIL M-125
NX	Grease, MIL-G-27617
RS	ALVANIA EPB #2 grease
RV	SRI #2 grease
RW	KRYTOX 240Ab grease
RX	SUNAPLEX 872 EP grease
U	Oil, MIL-L-7870
Z	ALVANIZ #3 grease

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NEW DEPARTURE HYATT BEARINGS DIVISION GENERAL MOTORS CORP (con.)

CODE 43334

fix	Suffix	Definition
Code for lubricant volumes other than standard. The following numbers, (except 9 and 99) and letters following the lubrication letter or letters indicate the oil or grease lubrication volume, (for volumes other than standard)		
2		- indicates 1/6 to 1/8 full of grease specified, including tolerance; except: R2-R6 and 34-39 = 15 percent full.
3		- indicates 25 percent full of grease specified
4		- indicates 40 percent full of grease specified
5		- indicates 50 percent full of grease specified
6		- indicates 30 percent full of grease specified
8		- indicates 75 percent full of grease specified
9		- Fingerprint removal - used as a suffix to lubricant code; indicates that the procedure is to be followed. This code may be invoked by either bearing print, bearing specification or other engineering specification. In the case of sealed or shield bearings, this operation is to be done prior to seal or shield assembly. Hands which contact the bearings shall be covered with clean gloves. Prelubricated bearings must be coated externally with the same grease as is specified for use in the bearing.
99		- Anti-friction bearing preserving procedure for AiResearch
F		- indicates 100 percent of grease specified

How to read NEW DEPARTURE ball bearing numbers:

EXAMPLE:

3215X1C
 3215 XR 1 C
 Basic bearing number
 Standard radial play
 ABEC-1 tolerance
 Andok C grease

EXAMPLE:

JH20209DBLY5A
 Q H 20209 DB L 5 A
 Nonmetallic separator
 25 degree contact angle
 Basic bearing number
 Duplex mounting, back-to-back
 Light preload
 ABEC-5 tolerance
 Rust preventive compound

EXAMPLE:

T499505DALRY1Z
 T Notch riding ARMOR-GARD seals
 4 O.D. snap ring
 99 Two seals
 505 Basic bearing number
 DA External and/or internal deviations
 LR Loose radial play
 Y Low speed sound test
 1 ABEC-1 tolerance
 Z Low-temperature grease

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MFR: NEW HAMPSHIRE BALL BEARINGS, INC.

CODE 83086

Prefix	Suffix	Definition
	B	Relieved land on inner or outer ring. Digits added to indicate design of rings and type of retainer including phenolic plastic
	C	Change from standard dimensions
	D	Ribbon retainer (used only when both crown or ribbon available for a given size)
	EE	Extended inner ring
F		Flanged bearings
	G	Grooved outer ring
	H	With through-hole (pivot types)
	K	Radial play-followed by either two or three digits For example: K13 radial play of 0.0001 - 0.0003 K811 radial play of 0.0008 - 0.0011
	L3	- One seal - glass reinforced Teflon. To indicate 2 seals use LL3.
	L4	- One seal - glass reinforced Teflon with stainless steel insert. To designate 2 seals use LL4.
	L5	- One seal - Synthetic rubber with integral stainless steel insert. To designate 2 seals use LL5.
M		Metric dimensions
N		Beryllium copper
	P	One shield
	P1	Shield on flange side
	P2	Shield on side opposite flange
	PP	Two shields
R		Retainer radial
S		Stainless steel
	T	- Phenolic crown retainer. Digits added to denote materials other than phenolic
	UP	Narrow width-single shield only
	W	Low torque
	Z	Spring separators
	-1	Back-to-back duplex
	-2	Face-to-face duplex
	-3	Tandem duplex
	-4	Universal duplex

How to read NEW HAMPSHIRE ball bearing part numbers

EXAMPLE:

S F R 188 PP EE D C8 K25
 Stainless steel
 Flanged outer ring
 Retainer radial
 Basic bearing number
 Two shields
 Extended inner ring
 Two piece ribbon retainer
 Change from standard dimensions
 Radial play 0.0002 inch to 0.0005 inch

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R: NICE BALL BEARING DIVISION OF SKF INDUSTRIES INC

CODE 43766

Prefix	Suffix	Definition
C	B	Bearing only
		Ground single-row radial annular ball bearing, non-loading groove, with retainer (C series)
	DC	Two synthetic contact seals (1600-3000 series or their specials)
	DCG	Double composition sealed bearing with snap ring
	DH	Extended inner ring with drilled hole
	DL	Two seals (7500-7600 series or their specials)
	DLG	Two seals, snap ring and groove on O.D. of outer ring (7500-7600 series or their specials)
	DS	Two shields
	DSF	Dust sealed on both sides with felt
	DSG	Double shielded bearing with snap ring
	DSZ	Extended inner ring with zerk grease fitting
RF	EIR	Extended inner ring
		Ground ball thrust bearing, flat races, retainer type
	IDS	Dust sealed on one side
LC	IRT	Extended inner ring tapped for setscrew (400 series type special feature)
		Locking collar
	MC	One shield and one synthetic contact seal
	NH	No hole in band on one side of bearing
R	NS	No shields
		Retainer
	R100	Rubber mounted bearing with housing
	R100M	Bearing and rubber mounting
	R100B	Bearing only
	SC	One synthetic contact seal (1600-3000 series)
	SS	One shield (1600-3000, and C series)
SSF	Dust sealed on one side with felt (400 series type special feature)	

▼ to read NICE ball bearing numbers:

AMPLE:

1601DS

1601 DS

Basic bearing number

Two shields

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MFR: NMB CORPORATION

CODE 5029

Prefix	Suffix	Definition
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PART NUMBER STRUCTURE

The NMB bearing number is composed of applicable characteristics from the following groups listed in the sequence presented.

- | | |
|---|--|
| <p>Group 1. MATERIAL
 SS - AISI 440C stainless steel
 NO CODE - SAE 52100 chrome steel
 NM - Beryllium copper
 SN - AISI 440C rings with beryllium copper balls.</p> <p>Group 2. TYPE:
 RI, R, L - Radial
 RIF, RF, LF - Flanged radial
 R - Flanged tapered O.D.
 FR - Duplex with one flanged and one unflanged bearing
 RIFW, RFW, LFW - Flanged with non-standard flange width
 MBRI, MBR, MBL - inner ring relieved and separable
 MBRIF, MBRF, MBLF - Inner ring relieved and separable - flanged outer ring
 MDRI, MDR, MDL - Inner ring relieved and non-separable
 MDRIF, MDRF, MDLF - Inner ring relieved and non-separable-flanged outer ring
 MERI, MER, MEL - Outer ring relieved and non-separable
 MERIF, MERF, MELF - Outer ring relieved flanged and non-separable
 MBF - Inner ring relieved and separable outer ring flanged and O.D. tapered
 MDF - Inner ring relieved and non-separable, outer ring flanged and O.D. tapered</p> <p>Group 3. BASIC SIZE:
 INCH SERIES - First one or two digits indicates O.D. in 16th of an inch. The following two or three digits indicate the bore size in a fraction of an inch, the first digit being the numerator and the second or the second and third digits being the denominator.
 METRIC SERIES - First two digits indicate O.D. in mm, second two digits indicate I.D. in mm.
 SPECIAL SIZE SERIES:
 Z - (Followed by letter and numbers) - Integral shaft flanged pivot outer ring assemblies and bell extra large flange threaded O.D.
 AS---- - Pulley type assemblies shaft assemblies mechanical parts tape guides special pivot type, special bearings
 T - Thrust bearing (flat race).
 Z-- - Following basic size indicates special ball complement assigned in numerical sequence. i.e. X1, X2, etc.</p> | <p>Group 4. FEATURES:
 ENCLOSURES:
 Z - Single metallic shield - removable
 ZZ - Double metallic shield - removable
 ZO - Single shield on side opposite flange.
 D - Single rubber seal
 DD - Double rubber seal
 L - Single glass reinforced PTFE seal
 LL - Double glass reinforced PTFE seal
 LO - Single seal on side opposite flanged
 LZ - Glass reinforced PTFE seal and shield with seal on flange side
 ZL - Shield and glass reinforced PTFE seal with shield on flange side
 DZ - Rubber seal and shield
 EXTENDED INNER RING:
 EE - Both sides
 E - One side
 RECESSED INNER: (Narrower than standard)
 VV - Both sides
 V - One side</p> <p>Group 5. MODIFICATIONS:
 SPECIAL EXTERNAL DIMENSION:
 A-- - Larger than standard O.D.
 W-- - Wider than standard width.
 Y-- - Narrower than standard width.
 N-- - Larger or smaller bore than standard.
 A - Semi-standard-larger width and O.D bearing.
 A---- - Larger O.D. than standard and special width.
 G - Special external groove in bearing
 BD-- - Special bore tolerances.
 SPECIAL DESIGN:
 SD-- - Special design bearing.
 CV-- - Special race curvature</p> <p>GROUP 6. DUPLEX PAIRS:
 DB - Back-to-back configuration
 DF - Face-to-face configuration
 DT - Tandem configuration
 DU - Universal duplex numbers following letter code indicate mean preload in pounds. If not followed by a number standard preload is applied.</p> |
|---|--|

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MFR: NMB CORPORATION (con.)

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PART NUMBER STRUCTURE

Group 7. CAGE TYPE:

H - Crown, land piloted
R - Ribbon land piloted
HD - Crown, ball piloted
RD - Ribbon, ball piloted
F - Full ball complement
P - Crown, copper bronze
PB - Crown beryllium copper
BR - Ribbon, beryllium copper
CR - Ribbon, PTFE coated
S - Spring
SL - Slug
J - Acetal, crown type
JM - Acetal, full type
KC - Crown phenolic, linen base
KB - Crown phenolic, paper base
KM - Full phenolic, linen base
KN - Full phenolic, paper base
T - Crown glass reinforced PTFE

Group 8. TOLERANCE:

A1 - ABEC-1
A3 - ABEC-3
A5 - ABEC-5P
A7 - ABEC-7P
A9 - ABEC-9P

Group 9. DIMENSIONAL CODING (CALIBRATION):

CXX - I.D. and O.D. calibration in
0.001 increments
COX - O.D. coding only 0.0001 increments
CXO - I.D. coding only 0.0001 increments
C44 - I.D. and O.D. calibration in
0.000050 increments
C40 - I.D. coding only 0.000050 in-
crements
C04 - O.D. coding only 0.000050 in-
crements

Group 10. RADIAL PLAY:

P - Followed by two - four numbers indi-
cate the radial play limits in ten-
thousandths of an inch. Example: P25
indicates radial play of 0.0002 inch to
0.0005 inch P25 is the NMB standard
radial play.

Group 11. TORQUE:

T - Followed by a number indicates
maximum starting torque in hundreds of
mg. mm. Example: T 15 indicates a
maximum starting torque of 1500 mg. mm.
RT - Followed by a number indicates
maximum running torque in hundreds of
mg. mm. Example RT 15 indicates a
maximum running torque of 1500 mg. mm.

Group 12. SMOOTHNESS:

S1 - Dwell level 1; Noise count 0
S2 - Dwell level 2; Noise count 0
S3 - Dwell level 3; Noise count 0
S4 - Dwell level 4; Noise count 0

Group 13. LUBRICANT:

Lubricant letter codes are followed by
a number to indicate specific type.
LO - Oils qualified to MIL-Specs
LG - Greases qualified to MIL-Specs.
LY - Other oils and greases
LM - Mixture of oil and grease
LD - Dry - No lubrication
BC - Following lubricant code indicates
barrier coating

Group 14. PACKAGING:

NO CODE - Plastic sealed vial
P - Pill pack
U - Unit pack
B - Blister pack
K - Kraft foil package
C - Coin wrap
VN - Vial with Nylon balls separating
bearings.

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MFR: NMB CORPORATION (con.)

CODE 50294

Prefix Suffix Definition

LUBRICANT SPECIFICATIONS

<u>NMB CODE</u>	<u>NAME AND MANUFACTURER</u>	<u>MIL. SPEC</u>
LB-11	1/85 = LO-1/FREON (BY VOLUME)	
LG-2	AEROSHELL grease 6, SHELL OIL CO.	MIL-G-7711A
LG-20	BEACON 325, HUMBLE OIL and REFINING CO.	
LG-31	MPB MINAPURE	MIL-G-15793
LG-32	ANDEROL L-793A, TENNECO CHEMICALS INC.	
LG-35	AEROSHELL GREASE 5, SHELL OIL CO.	MIL-G-3545B
LG-36	TEXACO 1999 high temp. grease, TEXAS OIL	MIL-G-3545B
LG-37	TEMPLUBE 124	MIL-G-4343A
LG-38	ANDOK B, HUMBLE OIL and REFINING CO.	MIL-G-18709A
LG-39	ANDOK C, HUMBLE OIL and REFINING CO.	
LG-43	SUPERMIL ASU-06752, AMERICAN OIL CO.	MIL-G-24760A
LG-49	AEROSHELL grease 7, SHELL OIL CO.	MIL-G-23827A
LG-52	CHEVRON O.H.T. grease STANDARD OIL OF CALIF.	MIL-G-18709A
LG-54	2346 low temp. grease EP, TEXAS OIL CO.	MIL-G-23827A
LG-55	ESSO 5114 EP GREASE, HUMBLE OIL	MIL-G-23827A
LG-56	BRAYCOTE 627, BRAY OIL CO.	MIL-G-23827A
LG-57	SUPERMIL GREASE A72832, AMERICAN OIL	MIL-G-23827A
LG-58	MOBIL NO. 27, MOBIL OIL CO.	
LG-61	KEYSTONE NO. 89 medium, KEYSTONE LUB. CO.	MIL-L-15719A
LG-67	ROYCO 21, ROYAL LUBRICANTS CO.	MIL-G-7421B
LG-71	ANDOK 260, HUMBLE OIL and REFINING CO.	MIL-G-3545B
LG-73	SHELL GREASE ETR-B	
LG-74	SHELL GREASE ETR-D	
LG-76	CHEVRON GREASE BRB-2	MIL-G-3545B
LG-80	AEROSHELL GREASE 14	MIL-G-25537A
LG-81	LUBRIPLATE 907	
LG-85	G. E. VERSIBLUE 341 H	
LM-41	2/1=L06(UNIVIS P38) /LG-20 (BEACON 325)	
LM-42	1/1=L06/LG20 by volume	
LM-43	1/2=L06/LG20 by volume	
LM-46	2/1=L06/LY72	
LM-51	1/8=G-300/F-50 (10grm/80cc)	
LM-52	2/1 G-300/F-50 by volume	
LM-53	1/1=G-300/F-50 by volume	
LM-54	1/3=G-300/F-50 by volume	
LM-61	1/8=G-300/F-44 (10grm/80cc) (use LM-51)	
LM-77	1/2=DC-44/DC-200 by volume	
LM-81	10GRM/80CC-DC-33LIGHT/DC-200(20CS)	
LM-82	5/95-GRAPHITE/ANDOK B by volume	
LM-83	97/3-DC.200(20)/ORTHOLEUM 162 (DUPONT)	
LM-84	3/7=DC-200(350 CST.)/DC-33F by volume	
LM-85	3/7=DC-200(20)/DC-33L by volume	
LM-91	1/8=M-100(LY-11) /F-50(1 -5) by volume	
LM-99	1/1/6 percent=DC-60/DC-61/AEROGIL	
LO-1	WINSOR LUBE L-245X, ANDERSON OIL	MIL-L-6085A
LO-2	ANDEROL L-401D TENNECO CHEMICALS, INC.	MIL-L-6085A
LO-3	AEROSHELL FLUID 12, SHELL OIL CO.	MIL-L-6085A
LO-4	PIONEER P-10, BENDIX ECLIPSE PIONEER	MIL-L-6085A
LO-6	UNIVIS P-38, HUMBLE OIL and REFINING CO.	MIL-L-6085A
LO-11	ESSO AVIATION INSTRUMENT OIL, HUMBLE OIL	MIL-L-7870A
LO-12	TEXACO 1692 low temp. oil, TEXAS OIL CO.	MIL-L-7870A
LO-13	AEROSHELL fluid 3, SHELL OIL CO.	MIL-L-7870A
LO-15	GULFITE oil 6, GULF OIL CO.	MIL-L-7870A
LO-21	AEROSHELL fluid 4, SHELL OIL CO.	MIL-H-5605A
LO-25	WINSOR LUBE LS-252 ANDERSON OIL CO.	MIL-L-17353
LO-31	BRAYCOTE 855, BRAY OIL CO	MIL-L-14107B
LO-51	AEROSHELL AIRCRAFT TURBINE OIL 304	MIL-L-7807G
LO-61	TURBO OIL 10 HUMBLE OIL CO. (grade 1010)	MIL-O-6081

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FR: NMB CORPORATION (con.)

CODE 50294

Prefix	Suffix	Definition
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LUBRICANT SPECIFICATIONS

<u>NMB CODE</u>	<u>NAME AND MANUFACTURER</u>	<u>MIL. SPEC</u>
LY-1	SF-96(40CS), GENERAL ELECTRIC CO.	
LY-2	SF-96-(1000 CS), GENERAL ELECTRIC CO.	
LY-3	GE L-623, GENERAL ELECTRIC CO.	
LY-4		
LY-5	VERSILUBE F-50, GENERAL ELECTRIC CO.	
LY-6	MOLYLOTE BR2-S, DOW CORNING CO.	
LY-7	DC-200(20CS), DOW CORNING CO.	
LY-8	DC FS-3451 NO. 2 DOW CORNING CO.	
LY-9	FS-3452, DOW CORNING CO.	
LY-10	SUPERMIL ASU M-40, AMERICAN OIL CO.	
LY-11	SUPERMIL ASU M-100, AMERICAN OIL CO.	
LY-12	DC-44 fluid, DOW CORNING CO.	
LY-13	DC-44 (medium), DOW CORNING CO.	MIL-G-15719A
LY-14	DC-41, DOW CORNING CO.	
LY-15	VERSILUBE G-300, GENERAL ELECTRIC CO.	
LY-16	VERSILUBE G-305M, GENERAL ELECTRIC CO.	
LY-17	TEXACO UNITEMP 500, TEXAS OIL CO.	
LY-18	ALVANIA RS grease, SHELL OIL CO.	
LY-19	DC-510 (100CS), DOW CORNING CO.	
LY-20	DC-330, DOW CORNING CO.	
LY-21	DC-510(50CS), DOW CORNING CO.	
LY-22	DC-200(10CS), DOW CORNING CO.	
LY-23	DC-200(750CS), DOW CORNING CO.	
LY-24	TERESSTIC V:79, HUMBLE OIL REFINING CO. (replaced by Teresstic N75)	
LY-25	DC-550 fluid, DOW CORNING CO.	
LY-26	DC-710R(500CS), DOW CORNING CO.	
LY-27	TERESSTIC N-75, HUMBLE OIL and REFINING CO.	
LY-28	DC-510 (2500CS), DOW CORNING CO.	
LY-30	DC-560 fluid, DOW CORNING CO.	
LY-31	LUBRIPLATE 910 (grease)	
LY-33	ANDEROL L-757-TENNECO CHEMICALS, INC.	
LY-34	AEROSHELL grease 17, SHELL OIL CO.	MIL-G-21164B
LY-36	DC-33 fluid, DOW CORNING CO.	
LY-37	DC-33, medium, DOW CORNING CO.	
LY-38	DC-200(100,000CS), DOW CORNING CO.	
LY-39	DC-200(12500CS), DOW CORNING CO.	
LY-40	DC-510(500CS), DOW CORNING CO.	
LY-41	ANDEROL L-423, TENNECO CHEMICALS, INC.	
LY-42	DC-200(200CS), DOW CORNING CO.	
LY-43	DC-200(1000CS), DOW CORNING CO.	
LY-44	APL GREASE, SHELL OIL CO.	
LY-45	SHELL ALVANIA RA grease, SHELL OIL CO.	
LY-46	NPT-4 BRAYCO, BRAY OIL CO.	
LY-47	DC F-60 fluid, DOW CORNING CO.	
LY-48	MOBIL grease NO. 28, MOBIL OIL CO.	MIL-G-81322
LY-49	CHEVRON AVIATION grease NO. 2 (rpm grease)	
LY-51	ISOFLEX NBU-15, KLUBER LUB (W/GERMANY)	
LY-52	DC-55 medium, DOW CORNING CO.	MIL-G-4343B
LY-53	MOLYDOTE type U, MOLYKOTE LTD.	
LY-54	WINDSOR lube LS-172, ANDERSON OIL CO.	
LY-55	ANDEROL L-456, TENNECO CHEMICALS, INC. (oil)	
LY-56	LT-10, ORE LUBE CORP.	
LY-57	DC-200(200,000 CS), DOW CORNING CO.	
LY-58	VERSILUBE F-44, GENERAL ELECTRIC CO. (No longer mfg. Use F-50)	
LY-59	FS-1292, DOW CORNING CO.	
LY-60	CARNATION WHITE MINERAL OIL, WITCO CHEM.	
LY-61	KENDALL KG-80, KENDALL REFINING CO.	
LY-62	ANDEROL L-762, TENNECO CHEMICALS INC.	
LY-63	SF-96(50CS), GENERAL ELECTRIC CO.	

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MFR: NMB CORPORATION (con.)

CODE 50294

Prefix	Suffix	Definition
<u>LUBRICANT SPECIFICATIONS</u>		
<u>NMB CODE</u>	<u>NAME AND MANUFACTURER</u>	<u>MIL. SPEC</u>
LY-64	ANDEROL L-788, TENNECO CHEMICALS INC.	
LY-65	DC-550R, DOW CORNING CO.	
LY-66	DC-510(1000CS), DOW CORNING CO.	
LY-67	RAUNA40, NIPPON SEKYU CO. Japan made	
LY-68	BRB No. 1, MOBIL OIL CO.	
LY-69	BRB LIFE TIME, MOBIL OIL CO.	
	FS-1291, DOW CORNING CO. (no longer manufactured)	
LY-71	SUPERMIL ASU GREASE 31052, AMERICAN OIL	MIL-G-25013D
LY-72	MALTEMP PS NO. 2 KYODOH YUSHI Japan made	
LY-73	MALTEMP PS NO. 3 KYODOH YUSHI Japan made	
LY-74	RAUNA 100, NIPPON SIKYU CO Japan made	
LY-75	SUPER BONE OIL	
LY-76	SQUALOLL-2	
LY-77	TELLUS 41, SHELL OIL CO.	
LY-78	SILCODYNE H, IMPERIAL CHEMICAL INDUSTRIES	
LY-79	FS-1265(1000CS), DOW CORNING CO.	
LY-80	DC-44 light, DOW CORNING CO.	
LY-81	DC-33 light, DOW CORNING CO.	
LY-82	SF-96(20CS), GENERAL ELECTRIC CO.	
LY-83	ALVANIA NO. 2, SHELL OIL CO.	
LY-84	ALVANIA NO. 3, SHELL OIL CO.	
LY-85	FS-1265(300CS), DOW CORNING CO.	
LY-86	AEROSHELL grease 16, SHELL OIL CO.	MIL-G-25760A
LY-87	ALVANIA NO. 1, SHELL OIL CO.	
LY-88	ANDEROL L-761, TENNECO CHEMICALS INC.	
LY-89	DRYLUB LOX type 822	
LY-90	SQUALOL L-1	
LY-91	SF-81(50CS), GENERAL ELECTRIC CO.	
LY-92	MOBIL VELOSITE NO. 3, MOBIL OIL CO.	
LY-93	BRAYCO MICRONIC NPT-3, BRAY OIL CO.	
LY-94	TELLUS 15, SHELL OIL CO.	
LY-95	ISOFLEXPDP38, KLUBER LUB (West Germany)	
LY-96	FS-1290, DOW CORNING CO.	
LY-97	DC-510(16000CS), DOW CORNING CO.	
LY-98	MOLYSIL33 (MX33), ROCOL ADVANCED LUBRIC.	
LY-99	DC-331, DOW CORNING CO.	
LY-100	DC-200(50CS), DOW CORNING CO.	
LY-101	DRYTOX 240AC, E.I. DUPONT CO.	
LY-102	SUN 742 EP grease, SUN OILCO.	
LY-103	ANDEROL L-795, TENNECO CHEMICALS INC.	
LY-104	AVJET JP-4 fuel, TEXAS OIL CO.	
LY-105	ISOFLEXPDP65, KLUBER LUB (West Germany)	
LY-106	MOLYKYROM MO-4, ROCOL ADVANCED LUBRICANT	
LY-107	Krytox 240AB, E.I. DUPONT CO.	
LY-108	PETROFINA 82590 (grease)	
LY-109	ESSO NUTO H44, HUMBLE OIL	
LY-110	BENDIXSOLUTION AK1080	
LY-112	ISOFLEXSUPER LDS18, KLUBER LUB.	
LY-113	CALYPSOL H729GF	
LY-114	MOBIL VELOCITY grade S, MOBIL OIL	
LY-115	KRYTOX 143AC	
LY-116	KRYTOX 240AZ E. I. DUPONT	
LY-117	KRYTOX 143AZ, E. I. DUPONT	
LY-118	SUNAPLEXEP 872 grease, SUN OIL CO.	
LY-201	BRAYCO 248, BRAY OIL CO.	MIL-G-11796B
LY-202	BRAY 855	MIL-L-14107B

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MFR: NMB CORPORATION (con.)

CODE 50294

EXAMPLE:

SSFIR-518ZZRASFP13T14LO1P

SS - Stainless steel

RIF - Flanged radial

518 - 5/16 inch O.D. by 1/8 inch bore

ZZ - Double shield

R- Ribbon retainer

A5 - ABEC-5P tolerance

P13 - Radial play 0.0001 to 0.0003 inch

T14 - Starting torque not to exceed 1400 (mg-mm)

LO1 - Windsor (Lube L-245X)

P - Pill pack.

MIL-HDBK-203C
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MFR: NTN BEARING CORPORATION OF AMERICA

CODE

UNMOUNTED BALL AND ROLLER BEARINGS

<u>Prefix</u>	<u>Definition</u>
A	As treatment for rings and balls
C	Carbon steel for rings and rollers
E	Case hardened steel for rings and rollers
EC	Expansion compensating bearing
F	Stainless steel rings and balls
FN	Design based on Fafnir-ntn license
H	High temperature tool steel for rings and balls
K	High frequency induction hardening
KC	Induction hardened carbon steel (K2C-, K3C-, etc.)
M	Plating on rings and balls
N	Special material
T	ASA series tapered roller brg. interchangeable design with U.S. std.
TK	High speed turbine bearing (DN 500,000)
TS1	Heat stabilization for 210°F (100°C to 130°C)
TS2	Heat stabilization for 265°F to 320°F (130°C to 160°C)
TS3	Heat stabilization for 320°F to 390°F (160°C to 200°C)
TS4	Heat stabilization for 390°F to 480°F (200°C to 250°C)
X	Experimental bearing
2C	Carbon steel for inner and outer rings
2E	Case hardened steel for inner and outer rings (carburized)
2F	Stainless steel inner and outer rings
2H	High temp. tool steel for inner and outer rings
2M	Plating on inner and outer rings
2N	Special material for inner and outer rings
3A	As treatment for inner ring and balls
3C	Carbon steel for inner ring and rollers
3E	Case hardened steel inner ring and rollers
3F	Stainless steel inner ring and balls
3H	High temperature tool steel inner ring and balls
3M	Plating on inner ring and balls
3N	Special material for inner ring and rollers
4C	Carbon steel outer ring and rollers
4E	Case hardened steel outer ring and rollers
4F	Stainless steel outer ring and balls
4H	High temp. tool steel outer ring and rollers
4M	Plating on outer ring and balls
4N	Special material for outer ring and rollers
4T	NTN 4 top tapered roller bearing case hardened special material
5A	As treatment for balls
5C	Carbon steel rollers
5E	Case hardened steel rollers
5F	Stainless steel balls
5H	High temperature tool steel rollers
5M	Plating on balls
5N	Special material for rollers
6A	As treatment for inner ring
6C	Carbon steel inner ring
6E	Case hardened steel inner ring
6F	Stainless steel inner ring
6H	High temperature tool steel inner ring
6M	Plating on inner ring
6N	Special material for inner ring
7C	Carbon steel outer ring
7E	Case hardened steel outer ring
7F	Stainless steel outer ring
7H	High temperature tool steel outer ring
7M	Plating on outer ring
7N	Special material for outer ring
8E	Case hardened steel for loose flange

MFR: NTN BEARING CORPORATION OF AMERICA (con.)

CODE

UNMOUNTED BALL AND ROLLER BEARINGS

<u>Suffix</u>	<u>Definition</u>
A	Contact angle 30 degrees for angular contact bearing
A	Internal redesign
A	Cage guided by inner or outer ring
B	Contact angle 40 degrees for angular contact bearing
B	Internal redesign
B	Cage guided by rollers
BSO	British standard class O
B3	AFBMA grade ABEC-3
B5	AFBMA grade ABEC-5 or RBEC-5
B5P	ABEC-5 for micro bearing
B7	AFBMA grade ABEC-7
B7P	ABEC-7 for micro bearing
B9	AFBMA grade ABEC-9
C	Contact angle 15 degrees for angular contact bearing
C	Internal redesign
C	High capacity design for radial ball bearing
C	Spherical roller bearing with symmetrical rollers
CA	Contact angle 20 degrees for angular contact bearing
CM	Special radial clearance for electric motor bearing
CS ^e	Special radial clearance, ^e is mean value in 0.001 MM units
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
D	Oil holes in ring
DB	Duplex pair, back-to-back mounting
DBF	Three angular contact bearings - DB pair with third bearing mounted DF
DBT	Three angular contact bearings - DB pair with third bearing in tandem
DF	Duplex pair, face-to-face mounting
DFT	Three angular contact bearings - consisting of DF pair with third bearing mounted in tandem
DT	Duplex pair, tandem mounting
DTT	Three angular contact bearings mounted in tandem
D0	Bearing without oil groove and holes in outer ring
D1	Bearing with oil groove and holes in outer ring
D2	Two bearings, parallel mounting
D3	Three bearings, parallel mounting
E1	Crowned rollers
E1	Special race curvatures (I.R. 1.02, O.R. 1.06)
E2	Crowned outer raceway (cylindrical tapered roller bearing)
E2	Special race curvatures (I.R. 1.04, O.R. 1.08)
E3	Crowned outer raceway and rollers (cylindrical and tapered roller bearing)
E4	Crowned inner raceway (cylindrical and tapered roller bearing)
E5	Crowned inner raceway and rollers (cylindrical and tapered roller bearing)
E6	Crowned inner and outer raceway
E7	Crowned raceway and rollers
F	Felt seal on one side
FF	Felt seals on both sides
F1	Machined steel cage
F2	Machined stainless steel cage
F3	Machined leaded steel cage
F4	Machined ductile iron cage
F5	Machined Cr - Mo steel cage
F6	Machined Ni - Cr - Mo steel cage
G	One piece cage with broached pockets
G	Single bearing flush ground side surfaces
GDB	DB duplex pair, flush ground side surface
GDF	DF duplex pair, flush ground side surface
GD2	Duplex pair, flush ground side surfaces for DB, DF and DT
G1	One piece brass cage with broached pockets for roller bearing
G2	Pin type cage for roller bearings

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MFR: NTN BEARING CORPORATION OF AMERICA (con.)

CODE

UNMOUNTED BALL AND ROLLER BEARINGS

<u>Suffix</u>	<u>Definition</u>
HM	Potentiometer bearing
J	Pressed steel cage (no suffix for standard design)
JR	Riveted cage where standard size is usually spot welded
JS	Spot welded cage where standard size is usually riveted
J1	Pressed stainless steel cage
J2	Machined steel cage with same design as J
K	Bearing with A 1 to 12 tapered bore
K-	Bearing with A 1 to - tapered bore ex. K30
L	Rubber seal (L type) on one side
LBLU	One LB and one LU seals
LBZ	One LB seal and one "Z" shield
LC	Seal with guard plate and rubber on one side
LL	Two rubber seals (black)
LLB	Light contact rubber seals on both sides (black)
LLC	Molded rubber seal with guard plates on both sides
LLU	Double-lip contact rubber seals on both sides (rust color)
LU	Double-lip contact rubber seal on one side
LUA	Polyacrylic rubber seal on one side (blue color)
LUAX	Tight contact, polyacrylic rubber seal on one side
LUA1	Fluorocarbon rubber seal on one side (brown color)
LUA2	Silicone rubber seal on one side
LUX	Tight contact double-lip rubber seal for fan clutch (green)
LUZ	One LU seal and one Z shield
L1	Machined brass cage
L3	Machined aluminum brass cage
L5	Machined oil-less bronze cage
L6	Machined-forged brass cage
L7	Machined iron-silicon bronze cage
L8	Machined brass bar material cage
M1	Phosphate treated cage
M2	Zinc plated cage
M3	Nitro-oxide treated cage
N	Snap-ring groove on outer ring, but without snap ring
NA	Radial clearance of cylindrical roller bearing with non-interchangeable components
NR	Snap ring on outer ring
NRS	Snap ring on the same side as the Z shield (For ball bearing) or on opposite side of NF flange (for roller bearing)
NS	Groove on same side as NRS but without snap ring
PB	Pressed phosphor-bronze cage
PM	MIL-B-17931C specification for U.S. Navy
PXN	Special tolerance, ex. PX1. PX2
P4	ISO grade class 4, approx. ABEC-7
P5	ISO grade class 5, approx. ABEC-5
P6	ISO grade class 6, approx. ABEC-3
S	Nylon seal on one side
SS	Nylon seals on both sides
S2	Low torque requirement
T1	Machined phenolic cage
T2	Nylon or teflon cage
T3	Machined rulon cage
U	4 top design with through-hardened steel for ISO (MM) series tapered roller bearing
UA	NTN heavy duty series, spherical roller bearing
UP	Ultra-super tolerance, over P4
V	Without cage (full roller type)
VN	Special requirement "V" involves all suffixes except tolerance seal, snap ring and tapered bore, ex. V1, V2
W	Slot or knock out hole on ring
W1	Oil hole groove or slot on cage
X	Cage design changed
X	Seal design changed
X	Snap ring and groove changed

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MFR: NTN BEARING CORPORATION OF AMERICA (con.)

CODE

UNMOUNTED BALL AND ROLLER BEARINGS

<u>Suffix</u>	<u>Definition</u>
XN	Chamfer changed, ex. X1, X2
Y	Pressed brass or bronze cage
Z	Shield on one side
ZA	Removable shield held with snap ring on one side
ZS	Z shield on filling slot side of maximum type ball bearing
ZZ	Two shields
ZZA	Two removable shields held with snap rings
ZZA1	Two removable stainless steel shields
ZZB	Double shields on both sides
ZZC	Seals of plate and rubber half circle each on both sides
ZZ1	Stainless steel shields on both sides
Z1	Stainless steel shield on one side
+A	With spacer for inch series double tapered roller bearing
+AH	Removal sleeve with MM thread
+BH	Special sleeve
+H	Adapter sleeve with MM thread
+ ∞	Bearing with spacer, width of spacer is ∞ in MM
-A	Without spacer
-O	ASA grade class 0 for tapered roller bearing
-OO	ASA grade class 00 for tapered roller bearing
-2	ASA grade class 2 for tapered roller bearing
-3	ASA grade class 3 for tapered roller bearing
/ASF12	Lube. (/XG) Shell oil. Aero Shell Fluid #12, MIL-L-6085A
/GH	Heavy preload
/GL	Light preload
/GM	Medium preload
/GN	Normal preload
/Gxx	Special preload, ex. /G8: 8KG, /G085: 85KG, /G50: 500KG
/XG	Special grease required
/ZG	Any standard grease, usually 3A
/ ∞	Special bore, size ∞ in MM, ex. 1 inch bore: /25.4
/ ∞	Special O.D., size ∞ in MM
/OG	Lube. (/XG), no grease for double sealed or shielded bearing
/1B	Lube. (/XG), Mobil oil, BRB #1
/1C	Lube. Chevron oil, OHT
/1D	Lube. (/XG), Dupont, crytox 240 AB, MIL-G-38220
/1E	Lube. Exxon oil, Andok-c
/1K	Lube. Kyoodoo oil, multemp PS #2
/1W	Lube. (/XG), Anderson oil, Windsor lube Lube L-245X, MIL-L-6085A
/2A	Lube. Shell oil, Alvania #2, MIL-G-18709A
/2C	Lube. Chevron oil, BRB #2, MIL-G-3545C
/2D	Lube. (XG), Dow Corning Oil, DC510 50CS fluid, MIL-L-27694
/2P	Lube. (/XG), W.R. and C. Co., Plastilube #2
/2T	Lube. (/XG), NTN, DVL-1
/3A	Lube. Shell oil, Alvania #3
/3C	Lube. (/XG), Shell oil, Cyprina #3, MIL-G-18709A
/3D	Lube. (/XG), Dow Corning oil, 3451 #1
/3E	Lube. Exxon oil, beacon 325
/3L	Lube., Dow Corning oil, DC33L
/3P	Lube. (/XG), W.R. and C. Co., Plastilube #3
/33P	Lube. (/XG,) Dow Corning oil, DC33M
/4A	Lube., Shell oil Alvania RA
/4C	Lube., Texaco oil, Unitemp 500
/4E	Lube., Exxon oil, Andok-260, MIL-G-3545C
/4L	Lube. (/XG), Dow Corning oil, DC44M with MoS2 (5 percent)
/4M	Lube., Dow Corning oil, DC44M, MIL-G-15719A
/44L	Lube, (/XG), Dow Corning oil, DC44L
/5C	Lube., Chevron oil, SRI #2, MIL-G-3545C
/6A	Lube. (/XG), Shell oil Darina #2
/7A	Lube. (/XG), Shell oil, Alvania EP-1
/8A	Lube., Shell oil, Alvania EP-2
/8B	Lube. (/XG), Mobil oil, Mobilplex 48
/8E	Lube. (/XG), Standard oil, RYKON #3

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MFR: NTN BEARING CORPORATION OF AMERICA (con.)

CODE

UNMOUNTED BALL AND ROLLER BEARINGS

<u>Suffix</u>	<u>Definition</u>
/9A	Lube. (/XG), Shell oil, Aeroshell #7, MIL-G-23827A
/9B	Lube. (/XG), Mobil oil, Mobil 28, MIL-G-81322
/10B	Lube. (/XG), Mobil oil, Mobiltemp #1
/11B	Lube. (/XG), Mobil oil, BRB lifetime
/12A	Lube. (/XG), Shell oil APL 700
/13A	Lube. (/XG), Shell oil, #140 turbine oil
/14A	Lube. (/XG), Shell oil, Aeroshell #16

<u>Prefix</u>	<u>Definition</u>
A	Inner ring reverse side of standard
B	Bearing reverse side of housing
M1	Phosphate treatment on rings and balls
M2	Black oxide on rings and balls
X	Experimental bearing unit
Zn	Special cover or rubber seal
10	One side inner diameter 10 mm (0.4 inch) large cover
15	One side inner diameter 15 mm (0.6 inch) large cover
2M1	Phosphate treatment of inner and outer rings
2M2	Black oxide on inner ring and outer ring
3M1	Phosphate treatment on inner ring and balls
3M2	Black oxide on inner ring and balls
4M1	Phosphate treatment on outer ring and balls
4M2	Black oxide on outer ring and balls
5	One side inner diameter 5 mm (0.2 inch) large cover
5M1	Phosphate treatment on balls only
5M2	Black oxide on balls only
6M1	Phosphate treatment on inner ring only
6M2	Black oxide on inner ring only
7M1	Phosphate treatment on outer ring only
7M2	Black oxide on outer ring only

<u>Suffix</u>	<u>Definition</u>
A	Sleeve with bore of 1/16 inch increment
-A1	Without seal in side of set screw
-A2	Without seal in reverse side of set screw
-A3	Without seals
B	Internal redesign
B1	Without slinger in side of set screw
B2	Without slinger in reverse side of set screw
B3	Without slingers
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
CD(n)	Cover with greasing port
CD1(n)	Cover with greasing and degreasing ports
CD2(n)	Cover with housing with degreasing port
CS00	Special clearance
CT1	Use temperature range minus 75°F to plus 70°F
D	Oil hole
D1	Oil groove on bore of housing
E	Sleeve with bore of 1/4 inch increment
F	Solid base and without bolt hole
F1	Without solid base
F2	Without bolt hole
F3(n)	With hole for locating pin
F7	Without fillet radius at bolt location
G(n)	Bolt distance and hole diameter redesign
G6	Small bolt hole of F1-housing (U.S. standard)
HT1	Use temperature range 70°F to 280°F
HT2	Use temperature range 70°F to 390°F

MIL-HDBK-203C
5 January 1977

MFR: NTN BEARING CORPORATION OF AMERICA (con.)

CODE

MOUNTED BALL BEARING UNITS

<u>Suffix</u>	<u>Definition</u>
J	Fitting between housing and bearing
K	1/12 tapered bore
L1	Bronze machined cage
LLA	Silicon rubber seal
LLC	Double contact lip seal
LLX	Tight contact seals more than L-seals
M(n)	Housing with key groove or notch hole
MX	Surface treatment of cage
N	Snap ring groove without ring
N	Cast steel
N1	Pearlite cast steel
NR	Snap ring on outer ring
NRS	Snap ring on (reverse location)
NS	Snap ring groove (reverse location)
NX	Other metal
P(n)	With additional accessory
PXn	Special tolerance (from PX1)
S	Sleeve with bore of 1/8 inch increment
U	Both sides with non-contact seals
Vn	Special spec. and request (from V1)
W	Bearing with key groove or notch hole
W0	Without set screw
W5	Special set screw
W6	Special set screw
W7(n)	Special set screw
W8	ASA unify thread set screw

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 5 January 1977

MFR: REXNORD INC., BEARING DIVISION

CODE 77896

Prefix	Suffix	Description
A		Double-row aircraft bearing, self-aligning, regular series (new series DAS).
A		Pillow block series designation.***
A		Industrial roller bearing equipped with two open auxiliary cap seals (as: AZA-).
	A	One open auxiliary cap seal installed on cover side of industrial roller bearing.
AB		Double-row aircraft bearing, self-aligning, regular series, wider sleeve (new series DAS).
AD		Double-row aircraft bearing, self-aligning, similar to "C" series except metal seal plates only (new series DAL).
AE		Double-row aircraft bearing, self-aligning,*** (new series DAS).
AEF		Double-row aircraft bearing, self-aligning, two felt contact seals*** (use new DAS series).
AF		Modification of double-row aircraft bearings "A", "AB", and "AD" series*** (use new DAS series).
AN		Lock-nut designation, used on industrial roller bearings.
AP		Aircraft double-row bearing, interchangeable with AN207DP ball bearing.
AR		Single-row female thread aircraft rod end, (ARA prefix, one bearing only) (new series SF).
ARE		Aircraft rod end bearing, single-row, self-aligning, two shields, female threads,*** (use SF series).
ATE		Aircraft rod end bearing, single-row, self-aligning, two shields, male threads,*** (use SM series).
ATFA		Annular bearing, TFE-fabric lined, aluminum, narrow outer ring.
ATFA-100		Annular bearing, TFE-fabric lined, aluminum, wide outer ring.
ATGA		Annular bearing, TFE-fabric lined, aluminum, narrow grooved outer ring.
ATGA-100		Annular bearing, TFE-fabric lined, aluminum, wide grooved outer ring.
	AZ	Bearing pre-lubricated with Texaco 984, MIL-G-7421 grease,***.
B		Single-row aircraft bearing (new series SA).
B		Industrial roller bearing flange unit,***.
B		Industrial roller bearing equipped with one open and one closed auxiliary cap seal (as: BZA-).
	B	One closed auxiliary cap seal installed on cover side of industrial roller bearing
BP		Single-row aircraft bearing, cylindrical O.D., interchangeable for AN-200-KP and KS ball bearings, double-row sleeve type (new series SA).
BR		Double-row aircraft bearing, self-aligning, two shields and Buna-"N" seals, sleeved inner ring (new series DAS).
C		Double-row aircraft roller bearing, self-aligning, one piece inner race fitted with positive seals (new series DA).
C		Industrial roller bearing takeover unit,***
	C	Center guide ring installed between retainers in industrial roller bearings.
D		Double-row industrial roller bearing, radial thrust bearing,***
DA		Industrial bearing duplex unit,***
DA		New series aircraft double-row annular bearing with no sleeves or collars.
DAC		New series double-row aircraft annular bearing with collars only.
DAL		New series double-row aircraft annular bearing with no sleeves or collars (seal groove flat - land).
DAS		New series double-row aircraft annular bearing with sleeves and collars.
DAT		New series double-row aircraft annular bearing, torque tube type.
DDR		New series double-row double eye aircraft link bearing.
DE		Double-row industrial roller bearing, self-aligning, non-separable,***
DE	T	Double-row self-aligning industrial roller bearing, tapered bore,***
DF		New series double-row aircraft roller bearing, female rod end with hex bottom (or wrench flat).
DFP		New series double-row aircraft bearing, female rod end with plain bottom.
DL		Industrial bearing duplex unit,***
DM		New series double-row aircraft roller bearing, male rod and threaded.
DMD		New series double-row aircraft roller bearing, male threaded "D" head rod end.

MIL-HDBK-203C
 5 January 1977

MFR: REKNORD INC., BEARING DIVISION (con.)

CODE 77896

Prefix	Suffix	Definition
DMH		New series double-row aircraft roller bearing, male threaded rod end, hollow shank.
DP		Special double-row aircraft roller bearing with Buna-"N" seals (new series DAT).
DPH		New series double-row aircraft roller bearing, plain hollow shank.
DPS		New series double-row aircraft roller bearing, male rod end plain shank, solid
DR		Industrial roller bearing duplex unit,
DRX		New series double-row aircraft roller bearing, special configuration.
DS		Special double-row aircraft roller bearing with stainless steel shields only,***
DT		Double-row aircraft bearing, straight roller (torque tube bearing),*** (new series DAT).
DT	A	Supersedes "DT" series, provided with positive alignment stop (new series DAT).
E		Industrial roller bearing duplex unit,***
	E	Double-row industrial roller bearing with one piece outer ring (cup),***
	F	Four-bolt hole construction, industrial roller bearing pillow block.
FA		Industrial roller bearing flange unit,***
FC		Industrial roller bearing outboard flange unit,***
FR		Aircraft roller, bearing, rod end, single-row, female threads (new series SF).
FS		Industrial roller bearing flange housing unit,***
	G	Industrial bearing threaded cover locked by set screws.
	G	Lubrication fitting for aircraft roller rod end bearing,***
	H	Reverse assembly for industrial roller bearing.
	H	Aircraft roller bearing equipped with beryllium copper retainers, TFE-fiber glass seals, and regular (MIL-G-23827) lubricant, intended for continuous operation at 250°F or intermittent operation to 300°F.
HR		Aircraft roller bearing, single-row, hollow shank rod end (no thread) (new series SPH).
L		Industrial roller bearing cartridge unit,***
	L	Left hand threads, rod end bearings.
	M	Aircraft roller bearing rod end equipped with two or more grease fittings (exception MR-4AM).
MA		Aircraft roller bearing, single-row, special 2 degree alignment rod end (AM-6 only model for Lockheed).
ML		Industrial roller bearing cartridge unit,***
MR		Aircraft roller bearing, single-row rod end, male thread (new series SM).
MRE		Aircraft roller bearing***, single-row, self-aligning, male thread rod end, *** (replaced by SM series).
MRX		New series multiple row roller bearing, special configuration.
MS		Industrial roller bearing cartridge unit,***
MW		Industrial roller bearing cartridge unit,***
N		Industrial bearing lock-nut
	N	Special slotting of threaded shank, aircraft roller rod end bearing,***
	P	Precision bore industrial roller bearing
	P	Aircraft roller bearing with contact seals,***
PA		Industrial roller bearing pillow block,***
PAC		Industrial roller bearing pedestal type pillow block,***
PAF		Industrial roller bearing pedestal type pillow block,***
PL		Industrial roller bearing pillow block,***
	PL	Precision and lapped industrial roller bearing.
PR		Aircraft roller bearing, single-row, plain solid shank rod end (no threads),*** (use SPS series).
	R	Press fit outer race O.D., industrial roller bearing.
	R	Reduced internal bearing fit, aircraft roller bearing
	RB	Reduced internal fit and close bore tolerance, aircraft roller bearing, ***
RF		Aircraft roller bearing, single-row, female rod end using AR-3 rod end eye only, (new series SF).

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MFR: REXNORD INC., BEARING DIVISION (con.).

CODE 77896

Prefix	Suffix	Definition
S		3- inch diameter conveyor rolls series,***
	S	Single-row industrial roller bearing, radial thrust,***
SA	S	Machine pilot on face of industrial roller bearing flange unit.
SAL		New series single-row aircraft roller bearing, annular with no sleeves and collars.
SAT		New series single-row aircraft roller bearing, annular with no sleeves and collars, with seal groove flat.
SC		New series single-row aircraft roller bearing, annular, torque tube type.
SD		2-1/4 inch diameter conveyor rolls series.***
SDR		4 inch diameter conveyor rolls series,***
SE		New series single-row aircraft roller bearing, double eye link bearing.
SF		5-inch diameter, conveyor roll series,***
SF		6-inch diameter conveyor roll series,***
SFP		New series single-row aircraft roller bearing, female threaded rod end with hex bottom (or wrench flat).
SM		New series single-row aircraft roller bearing, female threaded rod end with plain bottom.
SMD		New series single-row aircraft roller bearing, male threaded rod end.
SMH		New series single-row aircraft roller bearing, male threaded "D" head rod end.
SPH		New series single-row aircraft roller bearing, male threaded rod end, hollow shank.
SPS		New series single-row aircraft roller bearing, rod end, plain hollow shank.
SRX		New series single-row aircraft roller bearing, rod end, plain shank, solid.
ST		New series, single-row aircraft roller bearing, special configuration.
SV		Aircraft roller bearing, single-row male threaded rod end (new series SM)
	T	Aircraft roller bearing, single-row, female threaded rod end, no grease fittings.
	T	Wedge lock in threaded cover, industrial roller bearing unit
TFA		Double-row aircraft roller bearing with a preload of from 5 percent - 7 percent of radial limit load rating; single-row aircraft roller bearing with a preload of 7 percent - 10 percent of radial limit load rating.
TFA-100		Annular bearing, TFE-fabric lined, steel, narrow outer ring.
TFA-200		Annular bearing, TFE-fabric lined, steel, wide outer ring.
TFF		Annular bearing, TFE-fabric lined, steel, high misalignment.
TFF-400		Female rod end bearing, TFE-fabric lined, light duty
TFM		Female rod end bearing, TFE-fabric lined, per MIL-B-8948.
TFM-200		Male rod end bearing, TFE-fabric lined, light duty.
TFM-400		Male rod end bearing, TFE-fabric lined, high misalignment.
TGA		Male rod end bearing, TFE-fabric lined, per MIL-B-8948.
TGA-100		Annular bearing, TFE-fabric lined, steel, narrow grooved outer ring.
TGA-200		Annular bearing, TFE-fabric lined, steel, wide grooved outer ring.
TL		Annular bearing, TFE-fabric lined, steel, high misalignment, grooved outer ring.
TR		Industrial roller bearing take-up,***
W		Industrial roller bearing take-up,***
	W	Industrial roller bearing lock washer
	W	Industrial roller bearing with "wing type" retainer,***
	X	Female rod end bearing with NAS 513 key slot in bottom of shank; male rod end with NAS 513 keyway in face side of shank.
XC	A	Rod end bearings with threads rolled after heat treat,***
YD		Split type industrial roller bearing pillow block adapter mounting, double-row tapered bore,***
YS		Aircraft roller bearing, double-row, special series
YTA		Aircraft roller bearing, single-row special series
YTD		Annular bearing, TFE-fabric lined, special series
YTF		TFE-fabric lined bearing, special configuration
YTM		Female rod end bearing, TFE-fabric lined, special series
		Male rod end bearing, TFE-fabric lined, special series

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MFR: REXNORD INC., BEARING DIVISION (con.)

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Prefix	Suffix	Definition
ZA		Direct mounted self-aligning roller bearing pillow block, double-row bearing.
ZAT		Frame only for industrial roller bearing take-up unit.
ZAT-2000		Normal duty industrial roller bearing take-up unit with frame.
ZB		Direct mounted self-aligning roller bearing flange housing unit, normal duty, double-row.
ZBR		Direct mounted self-aligning roller bearing flange cartridge unit, normal duty, double-row.
ZBT		Direct mounted self-aligning roller bearing flange cartridge unit, heavy duty, double-row.
ZC		Direct mounted self-aligning roller bearing take-up unit, double-row, *** (see ZT-2000 series).
ZD		Industrial roller bearing heavy duty duplex unit, self-aligning, seals in end plate, with shims for adjusting bearing (See ZD-5000 series).
ZD-2000		Industrial roller bearing normal duty duplex unit, self-aligning, with seals and shims.
ZD-5000		Heavy duty industrial roller bearing duplex unit, self-aligning, with seals and shims.
ZE		Normal duty industrial roller bearing duplex unit, self-aligning, with seals and shims.
ZES		Industrial roller bearing take-up unit, heavy duty, boot end,*** (see ZET-5000 series).
ZET		Industrial roller bearing take-up frame only.
ZET-5000		Industrial roller bearing take-up unit and frame assembly, boot end.
ZF		Direct mounted self-aligning industrial roller bearing flange housing unit, heavy duty, double-row.
ZFA		Industrial roller bearing flange block, adapter series.
ZFB		Industrial roller bearing expansion flange block, adapter series.
ZFS		Industrial roller bearing expansion flange block, heavy duty.
ZGS		Industrial roller bearing take-up unit, heavy duty, head end.
ZGT		Take-up frame only for industrial roller bearing take-up.
ZGT-5000		Industrial roller bearing take-up unit and frame assembly, head end.
ZHT		Take-up frame only for industrial roller bearing take-up, center pull type.
ZHT-2000		Industrial roller bearing take-up unit and frame assembly, normal duty.
ZHT-5000		Industrial roller bearing take-up unit and frame assembly, heavy duty.
ZHTL		Industrial roller bearing take-up unit, extra heavy duty, left hand,***
ZL		Industrial roller bearing direct mounted self-aligning cartridge unit, normal duty, double-row.
ZM		Industrial roller bearing cartridge unit, heavy duty, large O.D.
ZMA		Industrial roller bearing cartridge, adapter series.
ZMB		Industrial roller bearing expansion cartridge, adapter series.
ZMC		Industrial roller bearing expansion cartridge, special,***
ZMF		Industrial roller bearing cartridge, special,***
ZMR		Industrial roller bearing cartridge, special,***
ZMV		Industrial roller bearing cartridge, special,***
ZMW		Industrial roller bearing cartridge unit, heavy duty
ZMX		Industrial roller bearing expansion cartridge, heavy duty.
ZMY		Industrial roller bearing cartridge, special.
ZN		Industrial roller bearing hanger box,***
ZN-2000		Industrial roller bearing take-up unit, normal duty.
ZN-5000		Industrial roller bearing take-up unit, heavy duty.
ZNT		Industrial roller bearing take-up frame only.
ZNT-2000		Industrial roller bearing take-up unit with frame assembly normal duty.
ZNT-5000		Industrial roller bearing take-up unit with frame assembly, heavy duty.
ZP		Direct mounted industrial roller bearing pillow block, heavy duty, double-row, fixed type.
ZPA		Adapter mounted self-aligning roller bearing pillow-block, double-row, fixed type.
ZPB		Adapter mounted self-aligning roller bearing pillow-block, expansion (floating) type, double-row.
ZPC		Industrial roller bearing pillow block, heavy duty (pedestal type),***
ZRT		Industrial roller bearing take-up unit, heavy duty,*** (see ZN-5000 series).

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MFR: REXNORD INC., BEARING DIVISION (con.)

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Prefix	Suffix	Definition
ZST		Industrial roller bearing take-up unit and frame,***
ZT		Direct mounted self-aligning roller bearing take-up unit, heavy duty, double-row,***
ZT-2000		Industrial roller bearing take-up block only, normal duty.
ZT-5000		Industrial roller bearing take-up block only, heavy duty.

*** Obsolete designations

NOTE: The following numeric suffixes are applied to industrial roller bearings only.

- 04 Cover 2 notches looser (2/12 turn)
- 05 Cover 1 notch looser (1/12 turn)
- 06 Cover 1 notch tighter (1/12 turn)
- 07 Cover 2 notches tighter (2/12 turn)
- 10 1/8 inch pipe plug in grease hole
- 11 #1184 Alemite button head fitting 1/8 P.T.
- 12 #1461 Alemite standard dot fitting 1/8 P.T.
- 14 #1831 Alemite giant button head fitting 1/8 P.T.
- 15 #1612 Alemite 65 degree 1/8 P.T.
- 16 A-336 Alemite 1/8 P.T.

- 16A M-336 Alemite 1/8 P.T.
- 17 #1688 Alemite 1/8 P.T.
- 18 #1613-B Alemite 1/8 P.T.
- 19 Stainless steel threaded rod, take-up units
- 20 1/4 inch pipe plug in grease hole
- 21 #1186 Alemite button head fitting 1/4 P.T.,** (Use -11)
- 22 #1489 Alemite mogul dot fitting 1/4 P.T.
- 23 #1823 Alemite giant button head fitting 1/4 P.T.
- 24 #45120 1/4 inch to 1/8 inch reducer with 1613 Alemite 85 degree angle fitting 1/8 P.T.
- 25 A359 Alemite, 1/4 pipe tap fitting,** (use -16).
- 26 5410 Lincoln or 16133 Alemite fitting
- 27 No grease fitting
- 28 #5099 Lincoln fitting, relief type
- 29 #1962 Monel Alemite fitting
- 30 Normal duty unit (1 collar omitted)
- 31 Heavy duty unit (collar omitted on housing side only)
- 32 Heavy duty unit (both collars omitted)
- 33 No name plate
- 34 Plain carton (unprinted)
- 36 Reversed cover and "M" seal assembly, Permatex #2 on threaded cover O.D.
- 37 (Special) (lapped bearing)
- 38 Taconite seal arrangement in auxiliary cap with "M" seal.
- 40 No lubrication in unit - rust preventative on bearing
- 41 Lubricated with Dow Corning #41
- 42 Lubricated with Socony Mobil BRB #4
- 43 Lubricated with Mobil temp #1
- 44 Lubricated with Lubriplate 630AA
- 45 Lubricated with Shell Alvania #2
- 46 2/3 - 3/4 filled with lubricant
- 47 Lubricated with Lubriplate 630-2
- 48 Lubricated with Mobilplex EP#2
- 49 Lubricated with Enarco Natex grease #2 (National Refining Co.)
- 50 Lubricated with Mobilplex EP#1
- 51 Lubricated with Lubriplate 930-AA
- 52 Lubricated with Lubriplate 930-A
- 53 Lubricated with Master lubricants M24M
- 54 Lubricated with Aeroshell #14
- 55 Lubricated with Marfax #2
- 56 Lubricated with MIL-G-23827
- 57 Lubricated with Keystone 89H

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Prefix	Suffix	Definition
	58	Lubricated with Keystone 78 Medium
	59	Lubricated with Pure Oil Co. HTEP #2
	60	Garlock seals with brass case and beryllium copper springs.
	61	Garlock seals with stainless steel case and beryllium copper springs.
	67	"M" wiping seal - housing side only, lip out
	68	"M" wiping seal - cover side only, lip out
	69	Press fit between housing and outer races - provided by smaller bore in standard housing
	70	Malleable iron housing
	71	Z metal housing.
	72	Cast steel housing
	73	Bronze housing
	80	Unit retapped for 1/4 inch pipe and equipped with standard #1627-B Alemite fittings
	81	Unit retapped with 1/4 inch pipe tap - designate fitting by proper suffix number (Example: 2181: unit with 1/4 inch P.T. and #1186 Alemite button head fitting).
	82	TFE-fabric lined inner race bore
	84	Heavy duty bearing with LifeGard seals
	85	Normal duty bearing with LifeGard seals
	88	Standard normal duty bearing assembly with "M" seals
	89	Standard heavy duty bearing assembly with "M" seals
	90	Adapter bearing assembly, including adapter sleeve, lock-nut and lock-washer, with "M" seals.
	91	Standard normal duty bearing assembly only
	92	Standard normal duty bearing-assembly with "Z" seals
	93	Standard normal duty bearing assembly with "K" seals
	94	Standard heavy duty bearing assembly only
	95	Standard heavy duty bearing assembly with "Z" seals
	96	Standard heavy duty bearing assembly with "K" seals
	97	Standard adapter bearing assembly including adapter sleeve lock-nut and lock-washer only
	98	Standard adapter bearing assembly including adapter sleeve, lock-nut and lock-washer with "Z" seals
	99	Standard adapter bearing assembly including adapter sleeve, lock-nut and lock-washer with "K" seals

NOTE: The following numeric suffixes are applied to the new series aircraft roller bearings only.

1	Reduced internal clearance
2	Annular bearing (other than torque tube type) preloaded to 3 percent - 7 percent of radial limit load rating; rod end bearing preloaded to 4 percent - 8 percent of radial limit load rating.
3*	Two grease fittings.
4	TFE-fiberglass seal.
5*	NAS516 keyway or key slot.
6*	Reduced clearance, two lube fittings
7	Reduced internal clearance, TFE-fiberglass seal
8*	Reduced internal clearance, NAS516 keyway or key slot.
9*	Reduced internal clearance, two lube fittings, TFE-fiberglass seal.
10*	Reduced internal clearance, two lube fittings, NAS516 keyway or key slot.
11*	Reduced internal clearance, TFE-fiberglass seal, NAS516 keyway or key slot.
12*	Reduced internal clearance, two lube fittings, TFE-fiberglass seals, NAS516 keyway or key slot.
13*	Preloaded internal fit, two lube fittings.
14	Preloaded internal fit, TFE-fiberglass seals.
15*	Preloaded internal fit, NAS516 keyway or key slot.
16*	Preloaded internal fit, two lube fittings, TFE-fiberglass seals.
17*	Preloaded internal fit, two lube fittings, NAS516 keyway or key slot.
18*	Preloaded internal fit, TFE-fiberglass seals, NAS516 keyway or key slot.

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MFR: REXNORD INC., BEARING DIVISION (con.)

CODE 77896

Prefix	Suffix	Definition
	19*	Preloaded internal fit, two lube fittings, TFE-fiberglass seals, NAS516 keyway or key slots.
	20*	Two lube fittings, TFE-fiberglass seals.
	21*	Two lube fittings, NAS516 keyway or key slot.
	22*	TFE-fiberglass seals, NAS516 keyway or key slot.
	23*	Two lube fittings, TFE-fiberglass seals, NAS516 keyway or key slot.
	24*	No lube fittings, TFE-fiberglass seals, NAS516 keyway or key slot.
	25	One Alemite 3019 lube fitting, TFE-fiberglass seals, NAS516 keyway (applied to DM and DMH rod ends with eye O.D. over 1.5 inches only).
	26*	Reduced internal clearance, no grease fittings, TFE-fiberglass seals, NAS516 keyway or key slot.
	27*	Threads per MIL-S-8879.
	28*	Threads rolled after heat treat.
	29*	Threads rolled after heat treat, threads per MIL-S-8879.
	30*	No grease fittings, TFE-fiberglass seals, NAS516 keyway or key slot, threads rolled after heat treat, threads per MIL-S-8879.
	31*	No grease fittings, TFE-fiberglass seals.
	32	TFE-fiberglass seals, grease per MIL-G-81322.
	33*	No grease fittings, TFE-fiberglass seals, grease per MIL-G-81322.
	34*	TFE-fiberglass seals, NAS516 keyway or key slot, grease per MIL-G-81322.
	35*	Two lube fittings, TFE-fiberglass seals, NAS516 keyway or key slot, grease per MIL-G-81322.
	36*	No grease fittings, TFE-fiberglass seals, NAS516 keyway or key slot, grease per MIL-G-81322.
	37*	No grease fittings, TFE-fiberglass seals, NAS516 keyway or key slot, threads rolled after heat treat, threads per MIL-S-8879, grease per MIL-G-81322.
	38*	No lube fittings, TFE-fiberglass seals, grease per MIL-G-81322.
	39*	Two lube fittings, TFE-fiberglass seals, NAS516 keyway or key slot, threads rolled after heat treat, threads per MIL-S-8879.
	40*	Two lube fittings, TFE-fiberglass seals, NAS516 keyway or key slot, thread per MIL-S-8879.
	41	Reduced internal clearance, TFE-fiberglass seals, grease per MIL-G-81322.
	42	Grease per MIL-G-81322.
	400 thru 499	Restricted use for high temperature environment only.
	500 thru 599	Reserve for non-standard variations.

* These suffixes are applied to rod end bearings only.

The following all - numeric designations are applied to Friction Bearing Products.

10	Spherical annular bearing, slot-loaded, chamfered outer ring.
11	Spherical annular bearing, narrow, chamfered outer ring.
12	Spherical annular bearing, narrow grooved outer ring.
13	Spherical annular bearing, wide, chamfered outer ring.
14	Spherical annular bearing, wide, grooved outer ring.
15	Spherical annular bearing, high misalignment, chamfered outer ring.
16	Spherical annular bearing, high misalignment, grooved outer ring.
17	Spherical annular bearing, bushed bore, chamfered outer ring.
18	Spherical annular bearing, bushed bore, grooved outer ring.
19	Spherical annular bearing, slot-loaded, grooved outer ring.
31	Male spherical rod end bearing, right hand thread.
32	Female spherical rod end bearing, right hand thread.
33	Male spherical rod end bearing, left hand thread.
34	Female spherical rod end bearing, left hand thread.
35	Male spherical rod end bearing, right hand thread with keyway.
36	Female spherical rod end bearing, right hand thread with key slot.
37	Male spherical rod end bearing, left hand thread with keyway.
38	Female spherical rod end bearing, left hand thread with key slot.

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PR: REXNORD INC., BEARING DIVISION (con.)

CODE 77896

Prefix	Suffix	Definition
41		Male spherical rod end bearing, high misalignment, right hand threads.
42		Female spherical rod end bearing, high misalignment, right hand threads.
43		Male spherical rod end bearing, high misalignment, left hand threads.
44		Female spherical rod end bearing, high misalignment, left hand threads.
45		Male spherical rod end bearing, high misalignment, right hand thread with keyway.
46		Female spherical rod end bearing, high misalignment, right hand thread with key slot.
47		Male spherical rod end bearing, high misalignment, left hand thread with keyway.
48		Female spherical rod end bearing, high misalignment, left hand thread with key slot.
90		Special configuration plain bushing.
91		Special configuration spherical annular bearing.
92		Special configuration two piece spherical rod end bearing.
93		Special configuration three piece spherical rod end bearing.
94		Special configuration spherical bearing, Teflon fabric in bore.
98		Special configuration, spherical bearing, miscellaneous.
99		Special configuration, spherical bearing, link assembly.
101		Journal bearing, TFE-fabric lined, plain, steel or aluminum (conforming to MS21240).
102		Journal bearing, TFE-fabric lined, flanged, unlined flange face, steel or aluminum.
103		Journal bearing, TFE-fabric lined, flanged, lined fabric face, steel or aluminum, (MS21241).
111		Journal bearing, TFE-fabric lined, sleeve in bore.
501		Journal bearing, filament wound, TFE-fabric lined, plain.
502		Journal bearing, filament wound, TFE-fabric lined, flanged, unlined flange face.
503		Journal bearing, filament wound, TFE-fabric lined, flanged, lined flange face.
504		Journal bearing, filament wound, TFE-fabric lined, sleeve in bore.
506		Special configuration, filament wound, TFE-fabric lined thread forms.
601		Annular bearing, TFE-fabric lined, narrow filament wound outer ring.
602		Annular bearing, TFE-fabric lined, wide filament wound outer ring.
603		Annular bearing, TFE-fabric lined, high misalignment, filament wound outer ring.
604		Annular bearing, TFE-fabric lined, filament wound outer ring, special configuration.
606		Male rod end bearing, TFE-fabric lined, filament wound outer ring, threaded rod, light series.
607		Male rod end bearing, TFE-fabric lined, filament wound outer ring, threaded shank, heavy series.
608		Male rod end bearing, TFE-fabric lined, filament wound outer ring, threaded shank, high misalignment.
609		Female rod end bearing, TFE-fabric lined filament wound outer ring, light series.
610		Female rod end bearing, TFE-fabric lined, filament wound outer ring, heavy series.
611		Rod end bearing, TFE-fabric lined, filament wound outer ring, special configuration.
701		Journal bearing, filament wound, TFE-fabric lined, plain, industrial application
702		Journal bearing, filament wound, TFE-fabric lined, flanged, unlined flanged face, industrial application.
703		Journal bearing, filament wound, TFE-fabric lined, flanged, lined flange face, industrial application.
704		Journal bearing, filament wound, TFE-fabric lined, sleeve in bore, industrial application.
706		Special configuration, filament wound, TFE-fabric, lined thread forms, industrial application.
801		Annular bearing, TFE-fabric lined, narrow filament wound outer ring, industrial application.

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MFR: REXNORD INC., BEARING DIVISION (con.)

CODE 7789

Prefix	Suffix	Definition
802		Annular bearing, TFE-fabric lined, wide filament wound outer ring, industrial application.
803		Annular bearing, TFE-fabric lined, high misalignment, filament wound outer ring, industrial application.
804		Annular bearing, TFE-fabric lined, filament wound outer ring, special configuration, industrial application.
806		Male rod end bearing, TFE-fabric lined, filament wound outer ring, threaded rod, light series, industrial application.
807		Male rod end bearing, TFE-fabric lined, filament wound outer ring, threaded shank, heavy series, industrial application.
808		Male rod end bearing, TFE-fabric lined, filament wound outer ring, threaded shank, high misalignment, industrial application.
809		Female rod end bearing, TFE-fabric lined, filament wound outer ring, light series, industrial application.
810		Female rod end bearing, TFE-fabric lined, filament wound outer ring, heavy series, industrial application.
811		Rod end bearing, TFE-fabric lined, filament wound outer ring, special configuration, industrial application.

How to read REXNORD bearing numbers.

1. Industrial roller bearings

Nomenclature consists of 4 basic sections as illustrated below:

A ZD 08 5215 38
 a. B. c. d.

- a. Prefix - Initial A or B indicates optional auxiliary caps
 - Z indicates "Z" seal; "M" seal ("G" seal in larger sizes) or "K" seal are optional as: "KD-"
 - balance indicates housing type.
- b. Series code - Indicates series relationship of basic bearing.
 Not used on all types.
- c. Basic bearing size - "5" indicates heavy duty; "2" normal duty
 "9" adapter series, sleeved to smaller bore size.
 - "215" bore size = 2-15/16 inches 115 = 1-15/16 inch, etc.
- d. Suffix - Modifications to base unit as indicated in list.

2. Aircraft roller bearings

- a. "Old" style nomenclature consists of three basic sections as follows:

AB 4 H
I 2 3

- (1) Prefix - basic bearing type
- (2) Bore size in 1/16 inch, "4" = 1/4 inch bore (Note: for YD and YS prefix, this section is non-significant, assigned sequentially.)
- (3) Suffix - Only "H", "L", "M", "R", "T" and "W" are significant as shown in list. Others are non-significant representing different modifications to base unit. (For "YD" and "YS", all non-significant.)

- b. "New" style nomenclature consists of 6 basic sections as follows:

SM 4 - 6 A - 4 L
I 2 3 4 5 6

- (1) Prefix - basic bearing configuration as indicated on list.
- (2) Bore size in 1/16 inch; "4" - 1/4 inch bore

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CODE 77896

- (3) Dimensional identification -
 - for annular bearings - nominal O.D. to nearest 1/16 inch "6" - 0.375 nominal O.D.
 - for rod end bearings - nominal thread diameter (or shank O.D. if not threaded) to nearest 1/16 inch
- (4) Dimensional variations - expressed as non-significant alphabetic symbols. (Addition of one digit to this section indicates customer approval rights).
- (5) Suffix - modifications to basic unit as indicated on the list.
- (6) Used only for rod end bearings with left-hand threads.

3. Friction bearings

a. Teflon fabric lined bearings with alphabetic prefix are identified as follows:

$\frac{TFA}{1} \frac{1}{2} \frac{04}{3} C$

- (1) Prefix - basic bearing type as indicated on list.
- (2) Bore size - expressed in 1/16 inch
- (3) Suffix - only "L" and "W" are significant as indicated on list. Others are assigned sequentially for modifications of basic unit.

b. Teflon fabric lined bearings with numeric prefix are identified as follows:

$\frac{101}{1} - \frac{1}{2} \frac{1}{3} \frac{12}{4} - \frac{024}{5}$

- (1) Prefix - basic bearing type as indicated on list.
- (2) Material - 0 = 7075-T6 aluminum.
 1 = 2024-T4 aluminum.
 2 = 410 stainless steel.
 3 = 17-4PH stainless steel
- (3) Plating - 0 = None
 1 = Anodize per MIL-A-8625
 2 = Alodine per MIL-C-5541
 3 = Cadmium per QQ-P-41C, type 1, class 2
- (4) Bore size in 1/16 inch
- (5) Length in 1/32 inch

c. Spherical friction bearing (no fabric lining) are identified as follows:

$\frac{11}{1} - \frac{1}{2} \frac{0}{3} \frac{00}{4} - \frac{08}{5}$

- (1) Prefix - basic bearing type as indicated on list.
- (2) Material - (varies with bearing type, consult catalog for exact identification).
- (3) Lubrication provisions - (varies with bearing type.)
- (4) Lubrication type - "0" indicates bearing packed with MIL-G-23827 grease. Dry film lubrication available as noted in catalog.
- (5) Bore size - expressed in 1/16 inch, "08" indicates 1/2 inch bore.

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MFR: ROLLWAY BEARING CO., INC.

CODE 51600

Prefix	Suffix	Definition
A		Roller assembly with split outer race, no inner race.
AT		Roller thrust bearing, single-row, single direction, flat race surface, self-aligning with seating ring, retainer type.
B		Roller assembly with hardened and ground outer race, no inner race.
CS		Cylindrical roller bearing, single-row cylindrical inner ring, cylindrical outer ring non-locating, separable, retainer type.
CT		Roller thrust bearing, single-row, single direction, flat race surface, rigid, retainer type, outer sleeve-crane hook.
D		Complete bearing assembly with hardened and ground inner and outer race.
DAT		Roller thrust bearing, double-row, double direction, flat race surface, self-aligning with two seating rings, center washer has a smaller I.D. and O.D. than other washers, inner sleeve rests on center washer face.
DT		Roller thrust bearing, double-row, double direction, flat race surface, rigid, retainer type, center washer has a smaller O.D. and I.D. than other washers, inner sleeve rests on face of center washer.
LL		Cylindrical roller bearing, single-row, one lip inner ring, one lip outer ring, one direction locating, separable, retainer type.
MACS		Cylindrical roller bearing, single-row, external self-aligning with ring, two lip inner ring, cylindrical outer ring, non-locating, separable, retainer type.
MAS		Cylindrical roller bearing, single-row, external self-aligning with aligning ring, two lip inner ring, cylindrical outer ring with 2 retainment rings, locating, self-contained, retainer type.
MCS		Cylindrical roller bearing, single-row, two lip inner ring, cylindrical outer ring, non-locating, separable, retainer type.
ML		Cylindrical roller bearing, single-row, two lip inner ring, one lip outer ring, one direction locating, separable, retainer type.
MLC		Cylindrical roller bearing, single-row, cylindrical inner ring, one lip outer ring, non-locating, separable, retainer type.
MN		Cylindrical roller bearing, single-row, two lip inner ring, two lip outer ring with one lip separable, two direction locating, separable, retainer type.
MNL		Cylindrical roller bearing, single-row, one lip inner ring, two lip outer ring with one lip separable, one direction locating, separable, retainer type.
MO		Cylindrical roller bearing, single-row, cylindrical inner ring, two lip outer ring with one lip separable, non-locating, separable, retainer type.
MS		Cylindrical roller bearing, single-row, two lip inner ring, cylindrical outer ring with 2 retainment rings, locating, self-contained, retainer type.
MU		Cylindrical roller bearing, single-row, two lip inner ring with one lip separable, two lip outer ring, two direction locating, separable, retainer type.
MUC		Cylindrical roller bearing, single-row, cylindrical inner ring, two lip outer ring, non-locating, separable, retainer type.
MUL		Cylindrical roller bearing, single-row, one lip inner ring, two lip outer ring, one direction locating, separable, retainer type.
PA		Roller assembly with heavy duty planished outer race, on inner race.
SDT		Roller thrust bearing, single-row, simplified double-acting, flat race surface, rigid, retainer type, inner and outer sleeves.
T		Roller thrust bearing, single-row, single direction, flat race surface, rigid, retainer type
E	B	Separator cage roller assemblies, self-contained in the outer race, with cylindrical separable inner race.
E	U	Cylindrical roller bearing, single-row, cylindrical inner ring, two lip outer ring, non-locating, separable, retainer type.
L	B	Cylindrical roller bearing, single-row, one lip inner ring, cylindrical outer ring with 2 retainment rings, one direction locating, separable, retainer type.
L	J	Cylindrical roller bearing, single-row, one lip inner ring, one lip outer ring with one retaining ring, one direction locating, separable, retainer type.

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R: ROLLWAY BEARING CO., INC. (con.)

CODE 51600

Prefix	Suffix	Definition
L	U	Cylindrical roller bearing, single-row, one lip inner ring, two lip outer ring, one direction locating, separable, retainer type.
U	B	Cylindrical roller bearing, single-row, two lip inner ring, cylindrical outer ring with 2 retainment rings, locating, self-contained, retainer type.
U	E	Cylindrical roller bearing, single-row, two lip inner ring, cylindrical outer ring, non-locating, separable, retainer type.
U	J	Cylindrical roller bearing, single-row, two lip inner ring, one lip outer ring, one retainment ring, locating, non-separable, retainer type.
U	L	Cylindrical roller bearing, single-row, two lip inner ring, one lip outer ring, one direction locating, separable, retainer type.
U	LP	Cylindrical roller bearing, single-row, two lip inner ring, two lip outer ring with one lip separable, two direction locating, separable, retainer type.
UM	B	Cylindrical roller bearing, single-row, two lip inner ring, cylindrical outer ring with 2 retainment rings, locating, self-contained, retainerless.
UM	J	Cylindrical roller bearing, single-row, two lip inner ring, cylindrical outer ring with one lip, one retainment ring, locating, self-contained, retainerless.
LP	U	Cylindrical roller bearing, single-row, two lip inner ring with one lip separable, two lip outer ring, two direction locating, separable, retainer type.
E	E	Cylindrical roller bearing, single-row, cylindrical inner ring, cylindrical outer ring, non-locating, separable, retainer type.
E	UMR	Cylindrical roller bearing, single-row, cylindrical inner ring, two lip outer ring, non-locating, separable, retainer type.
L	UMR	Cylindrical roller bearing, single-row, one lip inner ring, two lip outer ring, one direction locating, separable, retainer type.
LP	UMR	Cylindrical roller bearing, single-row, two lip inner ring with one lip separable, two lip outer ring, two direction locating, separable, retainer type.
U	BMR	Cylindrical roller bearing, single-row, two lip inner ring, cylindrical outer ring with 2 retainment rings, locating, self-contained, retainer type.
U	EMR	Cylindrical roller bearing, single-row, two lip inner ring, cylindrical outer ring, non-locating, separable, retainer type.
U	LMR	Cylindrical roller bearing, single-row, two lip inner ring, one lip outer ring, one direction locating, separable, retainer type.
U	LPMR	Cylindrical roller bearing, single-row, two lip inner ring, two lip outer ring with one lip separable, two direction locating, separable, retainer type.
E	EMR	Cylindrical roller bearing, single-row, cylindrical inner ring, non-locating, separable, retainer type.

How to read ROLLWAY bearing numbers.

EXAMPLE:

MUL-212

MUL- 212

Cylindrical roller bearings one lip inner, two lip outer, bronze cage.
 basic bearing number.

EXAMPLE:

L-1212-UMR

L- 1212 -U MR

Max-roll type cylindrical roller bearing, one lip inner, two lip outer.

MIL-HDBK-203C
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MFR: SCHATZ MFG: CO.

CODE 5326

Prefix	Suffix	Definition
A		Unground commercial 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.
AH		Unground commercial single-row radial with hexagon bore.
AP		Small size unground commercial single-row radial with close bore and O.D. tolerances.
AR		Unground heavy duty commercial single-row radial with machined outer case.
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 relubrication 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 ring 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.
ER		Ground functional precision single-row radial with set screws and set collar.
FA	C	Commercial bearing integral with 3-bolt round flange adapter unit with collar.
FA	F	Commercial bearing shield.
FA	S	Commercial bearing integral with 3-bolt round flange adapter unit with extended inner ring and set screws.
FL		Ground functional precision external self-aligning with 3-bolt round flange adapter unit.
G		Ground commercial single-row radial.
GS		Ground commercial single-row radial with set screws.
GT		Ground commercial single-row thrust.
KFH		Unground commercial radial with one piece machined outer ring and two or three piece machined inner ring and hexagon bore.
L		Ground functional precision external self-aligning (without flanges) for type FL, type TL, and type TRL adapter units.
M	L	Buna-N lip type seal for functional precision single row radial.
N		Precision ground miniature stainless steel.
	P	Precision ground miniature SAE-52100 steel.
	R	Commercial bearing plate closure.
	R	Buna-N face contact seal for functional precision single-row radial.
	RT	Commercial bearing reservoir.
	RT	Fluorocarbon plastic face contact seal for functional precision single-row radial.
	S	Commercial bearing felt seal.
SC		Special casters.
SRT		Stamped commercial single-row radial thrust.
TL		Ground functional precision external self-aligning with 2-bolt oval flange adapter units.
TRL		Ground functional precision external self-aligning with 3-bolt triangular flange adapter unit.
TW		Unground commercial single-row radial with flange and seals.
	U	Commercial bearing non-contact metal labyrinth seal.
	UP	Commercial bearing non-contact metal labyrinth seal and plate closure.

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R: SCHATZ MFG. CO. (con.)

CODE 53268

Above is a listing of prefixes and suffixes used in the identification of Schatz ball bearings. These letters are used, either singly or in various combinations, with the basic numbers, which express the bore size in 64ths of an inch and the outer diameter size in 32nds of an inch.

When the bore or outside diameter is not an exact 64th or 32nd part of an inch respectively, the nearest 64th or 32nd of an inch is used in the bearing identification number and a suffix letter A, B, C, etc., is assigned to the bearing number to indicate a non-exact 64th bore and/or a non-exact 32nd outside diameter size. In addition, these same letters are used to differentiate between bearings with the same bore and outside diameter sizes but having other modifications.

How to read SCHATZ ball bearings numbers:

EXAMPLE:

1240DP

1240 DP

Basic bearing number

Dustproof type bearing

MIL-HDBK-203C
 5 January 1977

MFR: SEALMASTER BEARINGS, MORSE CHAIN DIV. OF BORG-WARNER CORP.

CODE 02695

Prefix	Suffix	Definition
	A	Alternate assembly bearing reversed in LF or LFT housing
	AA	An adaptor and alemite
	AC	Air condition housing fit, looser than standard
	AF	Auxiliary felt for SF or SFT unit
	A/P	Adaptor and plug
AR		Cylindrical O.D. bronze ring with standard 2 series spherical O.D. ball bearing assembly
	C	Contact seal of Buna-N cotton fabric washer both sides
CRP		Direct mounted cast iron pillow block with rubber grommet and RB bearing
	D	Double lick bearing, utilizes four set screws, two each side of outer race
E		Bronze expansion ring only
	EC	End cap
EMP		Medium duty pillow block unit, expansion type (floating), with bronze expansion ring and spherical O.D. ball bearing
ESF		Standard duty flange unit with bronze expansion ring and spherical O.D. ball bearing assembly--four-bolt holes
ER		Style "A" extended inner ring ball bearing (furnished with snap ring on outer race, cylindrical O.D.)
FB		Flange bracket unit with three mounting holes for projected assemblies, spherical O.D. ball bearing assembly
HB		Countershaft hanger self-aligning ball bearing unit for four point type hangers
	K	King seals
L		Spherical O.D. ball bearing assembly, permanently sealed, and used in "L" series and "Stamped Steel" series units
LF		Light duty three-bolt holed self-aligning ball bearing flange unit, malleable housing and permanently sealed
LFT		Light duty two-bolt holed self-aligning ball bearing flange unit, malleable housing and permanently sealed
LP		Light duty malleable pillow block with self-aligning, permanently sealed ball bearing unit
LPG		Direct floor mounted protective screw take-up frame with LP pillow block
MFC		Medium duty ball bearing flange cartridge unit
MFP		Medium duty ball bearing pillow block unit--four-bolt hole base
MFPD		Medium double lock ball bearing pillow block unit--four-bolt hole base
MP		Medium duty ball bearing pillow block unit--two-bolt hole base
MPG		Direct floor mounted protective screw take-up frame with MP pillow block
MSC		Medium duty ball bearing cartridge unit
MSF		Medium duty ball bearing flange unit--four-bolt holes
MSFPD		Medium duty standard double lock ball bearing pillow block--four-bolt hole base
MSFT		Medium duty ball bearing flange unit--two-bolt holes
MSPD		Medium standard duty double lock ball bearing pillow block unit--two-bolt hole base
MST		Medium duty ball bearing take-up unit
MP		Normal duty ball bearing pillow block unit--two hole base
NP-200		Normal duty ball bearing pillow block unit, two-bolt hole base, millimeter bore bearings
NPD		Normal duty double lock ball bearing pillow block unit--two-bolt hole base
NPG		Direct floor mounted protective screw take-up frame with NP pillow block
	NT	Noise tested (carton stamped only)
	OR	"O" ring (replaces standard felt in seals)
	R	1/16 inch larger bore than standard for series (LP-20R-1-1/4 inch bore)
RB		Cylindrical O.D. extended inner ring ball bearing used in rubber mounted units
RF		SEALMASTER flange with adaptor plate
S-000-M		Special ball bearing unit
S-500-M		Normal duty ball bearing pillow block unit (shorter base to bore centerline dimension than NP units)

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SEALMASTER BEARINGS, MORSE CHAIN DIV. OF BORG-WARNER CORP. (con.)

CODE 02695

Prefix	Suffix	Definition
SC		Standard duty ball bearing cartridge unit
SCHB		Hanger ball bearing unit for screw conveyors (lubrication through shank)
SEHB		Hanger ball bearing unit for eccentric drives
SF		Standard duty ball bearing flange unit--four-bolt holes
SFC		Standard duty ball bearing flange cartridge unit
SFT		Standard duty ball bearing flange unit--two-bolt holes
SK		Special ball bearing assembly
SL		Cylindrical O.D. extended inner ring ball bearing assembly
SP		Standard duty ball bearing pillow block--two-bolt holes
SPD		Standard duty double lock ball bearing pillow block unit--two-bolt hole base
SPG		Direct floor mounted protective screw take-up frame with SP pillow block
SRC		Rubber mounted ball bearing cartridge unit
SRF		Stamped steel rubber mounted ball bearing flange unit--two-bolt holes
SRP		Stamped steel rubber mounted ball bearing pillow block unit--two-bolt holes
SSF		Circular stamped steel ball bearing flange unit--three square bolt holes
SSFT		Stamped steel ball bearing flange unit--two square bolt holes
ST		Standard duty ball bearing take-up unit
STH		Standard duty style "H" ball bearing steel frame take-up unit for wall mounting
STU		Standard duty ball bearing take-up unit for angle mounting
TSSF		Triangular stamped steel ball bearing flange unit--three square bolt holes
	WG	Wire groove on extended inner ring
	X-1	Free running bearing w/o felts
	Z	Zone hardened extended inner raceway with self-locking cup point set screws
2-000		Spherical O.D. extended inner ring ball unit, perimeter dimple and lubrication hole, used in "Normal" and "Standard" duty units
-000		Spherical O.D. extended inner ring ball bearing unit, perimeter dimple and lubrication hole, used in "Medium" duty units
5200		Spherical O.D. extended inner ring ball bearing unit, perimeter dimple and lubrication hole, used in "Normal" and "Standard" duty units, with millimeter bores

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MFR: SKF INDUSTRIES, IND.

CODE 5267

Prefix	Suffix	Division	Definition
	02	REED	Bearing W/O.D. coded to 0.0001 inch increments
	03	REED	Bearing W/O.D. coded to 0.00005 inch increments
	20	REED	Bearing W/bore coded to 0.0001 inch increments
	21	REED	Lube Cobehn Inc., Precision Instrument Oil/MIL-L-6085
	22	REED	Bearing W/bore O.D. coded to 0.0001 inch increments
	22	REED	Lube Anderson Oil Co, Windsor Lube L-245X/MIL-L-6085
	23	REED	Lube code 4264 Aeroshell Fluid #12/MIL-L-6085A2/SKF EA
	24	REED	Lube E.F. Houghton Co. Cosmolubric 270/MIL-L-6085
	25	REED	Lube Standard Oil of N.J. Univis P-38/MIL-L-6985- A2/SKF DA
	26	REED	Lube Eclipse Pioneer P-10/MIL-L-6085-A2/SKF EB
	27	REED	Lube Anderol L-401-D/MIL-L-6085-A2/SKF EC
	28	REED	Lube Bray 885/MIL-L-6085-A2/SKF DH
	30	REED	Bearing W/bore coded to 0.00005 inch increments
	31	REED	Lube Shell Oil, code 4254 Areo Shell FL #3/MIL-L-7870
	32	REED	LUBE TEXAS 1692 low temp oil/MIL-L-7870-A/SKF DD/
	33	REED	Bearing W/bore O.D. coded to 0.00005 inch increments
	33	REED	LUBE STD OIL OF N.J., ESSO AVIATION INSTRU OIL/MIL-L-7870
	34	REED	Lube Windsor L-1018/MIL-L-7870-A/SKF DF
	35	REED	Lube Lehigh Chemical Prod., L-407/MIL-L-7870
	36	REED	Lube Gulf Oil Co., Gulphite Oil 6/MIL-L-7870
	41	REED	Lube Esso Rust Ban 334/SKF FA/
	42	REED	Lube Anderson Oil Co, Windsor Rust Prev L1384/MIL-L-644
	43	REED	Lube Texas Co., Texaco Preservative Oil, Spec/MIL-L-644
	44	REED	Lube STD Oil of N.J., Preservative Oil 1193/MIL-L-644
	45	REED	Lube Shell Oil Co., code LG-1-21 Shell Preserv/MIL-L-644
	46	REED	Lube E. F. Houghton Co., Cosmoline 1044/MIL-L-644
	51	REED	Lube Versilube F-50/SKF ED
	52	REED	Lube Dow Corning Corp., DC 200 fluid/3.0 CS
	53	REED	Lube DC-200-20/SKF EF
	54	REED	Lube DC-200-30/SKF EF
	55	REED	Lube DC-200-350/SKF EG
	56	REED	Lube DC-510-20/SKF EG
	57	REED	Lube DC-510-50/SKF EJ
	58	REED	Lube DC-510-100/SKF EK
	59	REED	Lube DC-510-500/SKF EL
	60	REED	Lube Versilube F-44/SKF EM
	65	REED	Lube Teresstic V-78/SKF DG
	71	REED	Lube Standard Oil of N.J. Beacon M-325/SKF LB
	72	REED	Lube Texas Co., Texaco 1959 Unitemp grease/MIL-G-3278
	73	REED	Lube Shell Oil, code 5081 Aero Shell grease 11/MIL-G-3278
	74	REED	Lube E.F. Houghton Co., Cosmoline 505 grease/MIL-G-3278
	75	REED	Lube Lehigh Chem. Prod., Anderol L-793 grease/MIL-G-3278
	81	REED	Lube Texas 1999 HI temp/MIL-G-3545-B/SKF HE
	82	REED	Lube Shell Oil, Code 5076 Aero Shell Grease 5A/MIL-L-3545
	83	REED	Lube Sinclair Ref. Co., Sinclair HI temp grease /MIL-L-3545
	85	REED	Lube Texas 1996 Unitemp 500/SKF HD
	86	REED	Lube Amer. Oil Co. Super MIL ASU-M-100/SKF SC/
	87	REED	Lube Dow Corning Corp., DC 33 grease/MI55 light
	88	REED	Lube Dow Corning Corp., DC 55 grease
	89	REED	Lube General Electric, Versilube G-300 silicon grease
	90	REED	Lube G-300 GE Versilube/SKF SF
	91	REED	Lube Texaco Co., Regal Starfah MIL-L-7711 grease
	92	REED	Lube Shell Oil Co., ETR grade 21176A grease
	93	REED	Lube Texas #948-1888 LO TEM/SKF CA
	94	REED	Lube General Electric Co., #F50 Versilube Silicone Oil
	95	REED	Lube Shell ETR-B/SKF JB
	96	REED	Lube Shell ETR-D/SKF JC
	97	REED	Lube Shell Aeroshell #15/MIL-G-25013-C1/SKF JA

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IFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition	
A		REED	Deep groove narrow series straight O.D., flush rings	
	A	REED	0.0000 radial play	
	A	SKF	Bearing W/adapter for American Shaft Standard/EX 1606-A	
	A	SKF	Complete PARCO-LUBRIZE or SULITE coating	
	A	SKF	Contact angle 30 degrees/EX 7205-A	
	A	SKF	Internal design changed/EX 31308-A	
	A	TYSON	Dimensional variation form basic cone or cup	
	AB	TYSON	Dimensional variation from basic flanged cup	
	AC	TYSON	Dimensional variation from standard cup	
	AHA		SKF	Removal sleeve with American Std Thread/Phila
	AN		SKF	Nut for adapter sleeve/Phila
	ARN		SKF	Removal nut for ask-type sleeve/EX ARN-18
	ASK	AS	TYSON	Dimensional variation form basic cone or cup
AX		SKF	Removal sleeve/EX ASK-15	
B		REED	Loose needle roller w/spherical ends/standard/EX B142	
	B	REED	Bearing material-beryllium copper alloy	
	B	REED	Deep groove, narrow series, straight O.D., extended inner ring	
		B	REED	0.0001 radial play
		B	SKF	Contact angle 40 degrees/EX 7208-B
		B	SKF	Internal design changed/EX 227850-B
		B	TYSON	Brass cage cone
		B	TYSON	Flanged cup
		BA	SKF	Lube Quaker Chem. Co. Ferrocote Oil #366-K-1
		BA	SKF	High-capacity, 40-degrees contact angle ball BRG/EX 7219-BA
	BB		BREMEN	Drawn cup, open end needle roll BRG/EX BB182212
		BB	SKF	Lube Quaker Chemical Co. Ferrocote Oil #346
	BB	OH	BREMEN	Same as BB-, EXC with oil-hole/EX BB- 182212-OH
BBH		BREMEN	Same as BB-, EXC heavy-duty/EX BBH-162112	
BBH	OH	BREMEN	Same as BBH-, EXC with oil-hole/EX BBH-162112-OH	
BD		SKF	Lube Shell Ensiss Oil #30/MIL-L-21260	
		BREMEN	Drawn cup, closed end, grease retained needle roller BRG	
	BD	REED	Radial play, catalog designation for tight	
	BD	SKF	Lube Texas Pres. Oil #30/MIL-L-21260	
BDH		BREMEN	Drawn cup, closed end needle roll BRG/EX BDH-162116	
BDH	OH	BREMEN	Same as BDH-, exc with oil-hole/EX BDH-162112-OH/	
	BE	SKF	Lube Socony Mobil DTE 797	
BF		BREMEN	Drawn cup w/outward turned lip, grease retained needle roller BRG	
	BF	SKF	Lube Quaker Chemical Co. TMF-5815	
BFF	F	SKF	Special pillow block for buffalo forge- replaces BF-F	
	BG	SKF	Lube Mobile Kote #501	
	BJ	SKF	Lube E. F. Houghton Co. Cosmoline 993/MIL-C-22235 -A	
BN		BREMEN	Drawn cup, retainer type, closed end roll BRG/BN-121608	
BNH		BREMEN	Same as BN-, EXC heavy-duty/EX BNH-071108	
BP		BREMEN	Cage needle roller assembly/EX BP7767	
BR		BREMEN	Drawn cup, retainer type, open end roller BRG/BR-121608	
BR	T	BREMEN	Same as BR-, EXC w/molded nitrile seal on one side	
BR	TT	BREMEN	Same as BR-, EXC w/molded nitrile seal on both side	
BRH		BREMEN	Same as BR-, EXC heavy-duty/EX BRH-071108	
BT		BREMEN	Needle roller thrust bearing/EX BT-9929-5-46	
	BW	TYSON	Slotted flanged cup	
C		REED	Deep grove, narrow series, flanged O.D., flush rings	
		REED	0.0002 radial play	
	C	SKF	Contact angle 15 degrees/SER 7000 7200 thru 7208-C	
	C	SKF	Contact angle 20 degrees/SER 7200 form 7209-cup	
	C	SKF	Internal design changed/EX 23218-C	
	C	SKF	Spherical roller BRG W/guide ring pressed type cage	
	C	TYSON	Special high-capacity series cone	
	C01	SKF	Close inner ring running accuracy std internal clear	



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MFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition
	C02	SKF	Extra close inner ring running accuracy std internal clear
	C03	SKF	Close outer ring running accuracy std internal clear
	C04	SKF	Extra close outer ring running accuracy SDT internal clear
	C05	SKF	Close running accuracy of both inner outer rings
	C06	SKF	Combination of C02 plus C03
	C07	SKF	Combination of C01 plus C04
	C08	SKF	Extra close running accuracy of both inner outer rings
	C1	SKF	Radial clearance less than C2
	C2	SKF	Radial clearance less than normal
	C3	SKF	Radial clearance greater than normal
	C4	SKF	Radial clearance greater than C3
	C5	SKF	Radial clearance greater than C4
	C7	SKF	Precision roller tolerance
	C8	SKF	Specs on execution inspection apply/aircraft/
	C10	SKF	I.D. O.D. within limits of mean diameter
	C20	SKF	Reduced I.D. tolerance approaching nominal dimension
	C30	SKF	Reduced I.D. tolerance approaching low limit
	C40	SKF	Reduced O.D. tolerance approaching nominal dimension
	C50	SKF	Reduced O.D. tolerance approaching low limit
	C60	SKF	Combination of C20 plus C50
	C70	SKF	Combination of C20 plus C40
	C77	SKF	Super precision roller tolerance
	C78	SKF	Super precis, ABEC-5 std internal clearance
	C481	SKF	Super precision equiv to RBEC-5 in bearings/taper bore/C1 fit
	C997	SKF	Super-precision, ABEC-7 toler C7 extra-smooth running
	C4817	SKF	Equiv to RBEC-5 tol, C1 fit, C7 extra-smooth running
	C99177	SKF	Super precision, ABEC-7 tol, C1 fit C77 extra-smooth running
	CA	SKF	Lube Texas 984-1888 Lo temp
	CA	SKF	Spherical roller bearing w/separate guide ring integral s
	CAM	SKF	Spherical roller bearing w/machined bronze inner piloted cage
	CAM2	SKF	Spherical roller bearing w/machined bronze roller riding cage
	CF	REED	Radial play, catalog designation for standard
	CJ	SKF	Spherical roller bearing pressed steel inner piloted cage
	CK30	SKF	C-type spherical bearing with 1-to-30 tapered bore/Germany
	CL3	SKF	Bore, O.D. eccentricity tolerances equiv to ABEC-3
	CP	TYSON	Chrome plated cup or cone
	CR	TYSON	Ribbed cup
	CY	SKF	Press brass, window type cage, I.R. centered, for C spherical
D		REED	Deep groove, narrow series, flanged O.D., extended inner ring
	D	REED	0.0003 radial play
	D	REED	Wound-spring type retainer
	D	SKF	Matched boxed in pairs for duplex mounting
	D	TYSON	Double cone or cup
	D0	SKF	Separable bearing, non-interchangeable main components
	D9	SKF	DG ball bearing w/grooves for seals shields but w/out same
	DA	SKF	Lube Standard Oil of N.J. Univis P-38/MIL-L-6085-A2/
	DA	TYSON	Dimensional variation of basic double cone
	DA	TYSON	Double cup with spherical O.D.
	D..B	REED	Back-to-back mount, preload listed in pounds between letters
	DB	SKF	Lube Esso Turbo Oil 4040/MIL-L-7808-E/
	DB	TYSON	Flanged double cup
	DC	SKF	Lube Esso Aviation Instrument Oil/MIL-L-7870
	DD	SKF	Lube Texas 1692 low temp oil/MIL-L-7870
	DD	TYSON	Long double cone or double cup
	DE	SKF	Lube Windsor Lube L245X/MIL-L-6085-A2
	DE	TYSON	Dimensional variation of basic double cone
	D..F	REED	Face-to-face mount, preload listed in pounds between letters

MIL-HDBK-203C
 5 January 1977

MFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition
	DF	SKF	Lube Windsor Lube L-1018/MIL-L-7870A
	DG	SKF	Lube Teresstic V-78
	DH	SKF	Lube Bray 885/MIL-L-6085-A2
	DJ	SKF	Lube Teresstic V-79
	DK	SKF	Lube Alaskan Oil #43
	DS	TYSON	Dimensional variation of basic double cup
	D..T	REED	Tandem mounting, preload listed in pounds between letters
	DT	TYSON	Double cup, tapered O.D.
	D..U	REED	Univ duplex mount, preload listed in pounds between letters
	DW	TYSON	Double cone or cup with keyway or slot
E		REED	Deep groove, medium series, straight O.D., flush rings
	E	REED	0.0004 radial play
	E0	SKF	Extra precision linear motion assembly
	E3	REED	Corresponds to ABEC-3 precision
	E4	SKF	Semi-precision linear motion assembly
	E5	REED	Corresponds to ABEC-5 precision
	E7	REED	Corresponds to ABEC-7 precision
	EA	SKF	Lube code 4264 Aero Shell Fluid #12/MIL-L-6085-A2
	EA	TYSON	Cup spacer
	EB	SKF	Lube Eclipse Pioneer P-10/MIL-L-6085-A2
	EB	TYSON	Cup spacer
	EC	SKF	Lube Anderol L-401-D/MIL-L-6085-A2
	EC	TYSON	Cup spacer
ECA		SKF	Spherical bearing/airmelt carburized steel, O.R. only/Phila
ECB		SKF	Spherical bearing/airmelt carburized steel I.R. only/Phila
ECC		SKF	Spherical bearing airmelt carburized steel I.R. O.R. only/Phila
ECD		SKF	Spherical bearing, airmelt carburized steel, complete/Phila
	ED	SKF	Lube versilube F-50
	ED	TYSON	Cup spacer
	ED	TYSON	Short double cup
EE		SKF	Extra-small, inch dimension ball bearing/EX EE-9
EEA		SKF	Same as EE-, EXC revised dimensions/EX EEA2, EEA2-2Z
EEB		SKF	Same as EE-, EXC larger width to accomodate sealing
EE		TYSON	Large bore double rib type construction cone
	EE	SKF	Lube DC200-20
	EF	SKF	Lube DC200-30
	EG	SKF	Lube DC200-350
EH		TYSON	Extra heavy series cone or cup
	EH	SKF	Lube DC510-20
	EJ	SKF	Lube DC510-50
	EK	SKF	Lube DC510-100
EL		TYSON	Extra light series cone or cup
	EL	SKF	Lube DC510-500
	EM	SKF	Lube Versilube F-44
	EN	SKF	Lube 6 to 8 parts Xylene plus 1 part DC510-50/EJ/
EP		SKF	Spherical roller bearing w/precision tolerances/Phila/
EPCA		SKF	Same as ECA-, except with precision tolerances
EPCB		SKF	Same as ECB-, except with precision tolerances
EPCC		SKF	Same as ECC-, except with precision tolerances
EPCD		SKF	Same as ECD-, except with precision tolerances
EPVA		SKF	Same as EVA-, except with precision tolerances
EPVB		SKF	Same as EVB-, except with precision tolerances
EPVC		SKF	Same as EVC-, except with precision tolerances
EPVD		SKF	Same as EVD-, except with precision tolerances
ER		SKF	Triple seal ring for pillow block/EX ER-846
EVA		SKF	Spherical bearing, vacuum melt carburized steel, O.R. only/Phila
EVB		SKF	Spherical bearing, vacuum melt carburized steel, I.R. only/Phila
EVC		SKF	Spherical bearing, vacuum melt carburized steel, I.R. O.R. only/Phila

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MFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition
EVD		SKF	Spherical bearing, vacuum melt carburized steel, complete/Phila
F		REED	Deep groove, medium series, cylindrical O.D., extended inner ring
F	F	SKF	Pressed steel flange, 3-bolts/EX F-40
	F	REED	0.0005 radial play
	F3	SKF	Machined steel or Monel cage
	FA	SKF	Machined ductile iron cage
	FB	SKF	Lube Esso Rust Ban 334
	FC	SKF	Lube Wilson Brower Thixotropic Oil 832-20
	FC	SKF	Lube Standard of N.J. Esso Turbo 16/MIL-C-8188C
FD		SKF	Machined steel or Monel cage centered in I.R./Phila
FD	C	SKF	FY in ductile iron, non-relube, with 479 series bearing
FD	G	SKF	False twist spindle, internal DES changed/EX FD-630-C
FD	P	SKF	FY in ductile iron, re-lube, with 479 series bearing
FD	PG	SKF	FY in ductile iron, rev. mounted, non-relube, 479 series bearing
FDL		SKF	FY in ductile iron, rev. mounted, re-lube, 479 series bearing
FDL	G	SKF	FYL in ductile iron, non-relube, with 454 series bearing
FDL	P	SKF	FYL in ductile iron, re-lube, with 454-VSB series bearing
FDL	PG	SKF	FYL in ductile iron, rev. mounted, non-relube, 454 series bearing
FDP		SKF	FYL in ductile iron, rev. mounted, re-lube, 454-VSB series bearing
FDP	G	SKF	FYP in ductile iron, non-relube, with 478 series bearing
FDP	P	SKF	FYP in ductile iron, re-lube, with 478-VSB series bearing
FDP	PG	SKF	FYP in ductile iron, rev. mounted, non-relube, 478 series bearing
FDT		SKF	FYP in ductile iron, rev. mounted, re-lube, 478-VSB series bearing
FDT	G	SKF	FYT in ductile iron, non-relube, with 479 series bearing
FDT	P	SKF	FYT in ductile iron, re-lube, with 479 series bearing
FDT	PG	SKF	FYT in ductile iron, rev. mounted, non-relube, 479 series bearing
FDTL		SKF	FYT in ductile iron, rev. mounted, re-lube, 479 series bearing
FDTL	G	SKF	FYTL in ductile iron, non-relube, with 454 series bearing
FDTL	P	SKF	FYTL in ductile iron, re-lube, with 454-VSB series bearing
FDTL	PG	SKF	FYTL in ductile iron, rev. mounted, non-relube, 454 series bearing
FDTP		SKF	FYTL in ductile iron, rev. mounted, re-lube, 454-VSB series bearing
FDTP	G	SKF	FYTP in ductile iron, non-relube, with 478 series bearing
FDTP	P	SKF	FYTP in ductile iron, re-lube, with 478-VSB series bearing
FDTP	PG	SKF	FYTP in ductile iron, rev. mounted, non-relube, 478 series bearing
FDTX		SKF	FYTP in ductile iron, rev. mounted, re-lube, 478-VSB series bearing
FDTX	G	SKF	FYTX in ductile iron, non-relube, with 477 series bearing
FDTX	P	SKF	FYTX in ductile iron, re-lube, with 477 series bearing
FDTX	PG	SKF	FYTX in ductile iron, rev. mounted, non-relube, 477 series bearing
FDX		SKF	FYTX in ductile iron, rev. mounted, re-lube, 477 series bearing
FDX	G	SKF	FYX in ductile iron, non-relube, with 477 series bearing
FDX	P	SKF	FYX in ductile iron, re-lube, with 477 series bearing
FDX	PG	SKF	FYX in ductile iron, rev. mounted, non-relube, 477 series bearing
FE		SKF	FYX in ductile iron, rev. mounted, re-lube, 477 series bearing
			Bolster springs/EX FE-148/textile application

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MFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition
FL		SKF	Same as FP, exc with 454 agricultural seal bearing series
	FN	REED	Radial play, catalog designation for loose
FP		SKF	3-bolt pressed steel round flange bearing/EX FP-102
FP		SKF	Fixed boss top roller/EX FP-2/textile application
	FP	SKF	Steel or special cast iron cage, slot or broach roller cent
	FPC	SKF	Same as -FP, except inner ring centered
	FPS	SKF	Same as -FB, except outer ring centered
FR		SKF	Belt guide roller/EX FR-23241/textile application
	FR	TYSON	Full roll type cone
	FS	SKF	Machined steel or Monel cage centered in O.R./Phila
FT	/	SKF	Pressed steel flange, 2-bolts/EX FT-40/
FTL		SKF	Same as FTP, exc with 454 agricultural seal bearing series
FTP		SKF	2-bolt pressed steel elongated flange bearing/EX FTP102
FY		SKF	Flanged housing bearing w/set screw collar/EX FY-102
FY	X	SKF	Flanged housing bearing w/eccentric collar/EX FY-102-X
FYL		SKF	Same as FYP, exc with 454 agricultural seal bearing series
FYP		SKF	Flanged housing bearing w/set screw collar/EX FYP-102
FYR		SKF	Flanged round housing spherical bearing w/set screw/ EX FYR107
FYR	P	SKF	Same as FYR-, exc reverse flange mounting/FYR-107-P
FYTL		SKF	Same as FYTP exc with 454 agricultural seal bearing series
FYTP		SKF	Two bolts, cast iron flange unit with 478 series bearing
G		REED	Deep groove, medium series, flanged O.D., flush rings
	G	REED	0.0006 radial play
	G	SKF	Flush-ground side surfaces for duplex mounting
	G02	SKF	20 pounds preload
	G05	SKF	50 pounds preload
	G1	SKF	100 pounds preload
	G5	SKF	500 pounds preload
	GA	REED	Torque test, average torque value of 800 MG/MM
	GA	SKF	Lube Wilson Brower 300-1
	GB	SKF	Lube Wilson Brower 300-1-C
	GC	SKF	Lube Valvoline Oil Co. Tectyl #437/MIL-C-11796B
	GD	SKF	Lube Gulf Petrolatum extra amber
GL		SKF	Same as GP, exc with 454 agricultural seal bearing series
	GM	REED	Torque test, modal torque value of 800 MG/MM
GN	A	SKF	Hi-capacity N-series W/HYATT corner radius
GNF	A	SKF	Hi-capacity NF-series W/HYATT corner radius
GNJ	A	SKF	Hi-capacity NJ-series W/HYATT corner radius
GNP	A	SKF	Hi-capacity NP-series W/HYATT corner radius
GNU	A	SKF	Hi-capacity NU-series W/HYATT corner radius
GNUP	A	SKF	Hi-capacity NUP-series W/HYATT corner radius
GP		SKF	CYL cartridge w/sphered O.D. rubber mounting/EX GP-12
	GP	REED	Torque test, peak torque value of 800 MG/MM
	GS	SKF	Removable molded nitrile seal on one side
	2GS	SKF	Removable molded nitrile seal on both sides
	G9NBR	SKF	Same as -GSNB, except with snap-ring
	G9NR	SKF	Same as -GSN, except with snap-ring
	2GSNR	SKF	Same as -2GS, except with snap-ring
	GSP	SKF	Removable molded polyacrylic seal
	2GSP	SKF	Removable molded polyacrylic seal on both sides
	GSV	SKF	Removable molded fluorocarbon seal
	2GSV	SKF	Removable molded fluorocarbon seal on both sides
	GSZ	SKF	GS-seal on one side, Z-plate on the other side
H		REED	Deep groove, medium series, flanged O.D., extended inner ring
H		TYSON	Heavy series cup or cone
	H	REED	0.0007 radial play
	H	SKF	Pressed hardened steel snap cage
HA		SKF	Adapter sleeve for American standard shaft/EX HA-2313

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MFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition
	HA	SKF	Torque test, average torque value of 900 MG/MM
	HA	SKF	Lube Standard of N.J. Andok C
	HB	SKF	Lube Standard of N.J. Andok-260
	HC	REED	Crown type stainless steel retainer
	HC	SKF	Lube Standard of Calif. RPM Aviation #2/MIL-G-3545B
	HC	SKF	Pressed steel snap cage, inner ring centered
	HD	SKF	Lube Texas 1996 Unitemp 500
	HE	SKF	Lube Texas 1999 Hi-temp/MIL-G-3545-B
HF		SKF	Bolster insert/EX HF-4/textile application
	HF	SKF	Lube Standard of Calif. Chevron OHT/MIL-G-18709-A3
	HG	SKF	Lube Standard of Indiana Rykon #2
HH		TYSON	Heavy-heavy series cup or cone
	HH	SKF	Lube Imperial Oil Co. of Canada Esso MP grease 7
	HJ	SKF	Lube Shell Aero Shell #5/MIL-G-3545B
	HK	SKF	Lube N.Y. N.J. S-59
	HL	SKF	Lube Royco 5-N/MIL-G-3545-B/
HM		SKF	Bolster insert/EX HM-337/old style, replacement only
HM		TYSON	Heavy-medium series cup or cone
	HM	REED	Torque test, modal torque value of 900 MG/MM
	HM	SKF	Lube Texaco TG 7016
HMVP		SKF	Hydraulic nut/EX HMVP-76
HNC	A	SKF	CRB, two snap-rings in O.R., two lips in I.R., J-cage/HNC206A
HNC	AB	SKF	Size of ser HNC-A with width non-conforming ISO stds
HNC	ABV	SKF	Size of ser HNC-AV with width non-conforming ISO stds
HNC	AV	SKF	CRB, two snap-rings in O.R., two lips in I.R., no cage
HNJ	A	SKF	CRB, two snap-rings in O.R., one lip in I.R., J-cage/HNJ206-A
HNJ	AB	SKF	Size of ser HNJ-A with width non-conforming ISO stds
HNU		SKF	Outer ring of snap-ring type cylindrical roller bearings
HNU	A	SKF	Cylindrical roller bearings two snap-rings in O.R., straight I.R., J-cage/HNU-206-A
HNU	AB	SKF	Size of ser HNU-A with width non-conforming ISO stds
HNU	J	SKF	Cage of snap-ring type cylindrical roller bearings
	HP	REED	Torque test, peak torque value of 900 MG/MM
HZ		SKF	Bolster base unit/EX HZ-66/textile application
I-		SKF	As per drawing I-.../SER or SPEC/stamped changes to
J		BREMEN	Loose needle roller w/flat sheared ends/EX J-1056
J		REED	Deep groove, extra narrow series, straight O.D., flush rings
J		TYSON	Size equivalent to corresponding in Timken J-line
	J	REED	0.0008 radial play
	J	REED	Ribbon type stainless steel retainer
	J	SKF	Pressed un-hardened steel cage
	JA	REED	Torque test, average torque value of 1000 MG/MM
	JA	SKF	Lube Shell Aeroshell #15/MIL-G-25013-C1
	JB	SKF	Lube Shell ETR-B
	JC	SKF	Lube Shell ETR-D
	JM	REED	Torque test, modal torque value of 1000 MG/MM
	JP	REED	Torque test, peak torque value of 1000 MG/MM
K		TYSON	Special heavy double cup or roller assembly
	K	REED	0.0009 radial play
	K	SKF	Bearing with 1-to-12 tapered bore/EX 1207-K
	K30	SKF	Bearing with 1-to-30 tapered bore/EX 24140-Ck30
	KA	REED	Torque test, average torque value of 1100 MG/MM
	KM	REED	Torque test, modal torque value of 1100 MG/MM
	KP	REED	Torque test, peak torque value of 1100 MG/MM
L		TYSON	Light series cup or cone
	L	REED	0.0010 radial play
	L	SKF	Machined dural cage
	LA	REED	Torque test, average torque value of 1200 MG/MM

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AFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition
	LA	SKF	Lube Texas low-temp EP #1346/MIL-G-13827B
	LB	SKF	Lube Std of N.J. Beacon M-325/MIL-G-3278
	LC	SKF	Lube Mid Continent Oil Co. MIDCO 287 instrument grease
	LC	SKF	Machined dural cage, centered in inner ring
	LD	SKF	Lube Shell Aeroshell #7A/MIL-G-3278-A1
	LE	SKF	Lube Anderol L-793
LER		SKF	Triple seal ring for pillow block/EX LER-14
	LF	SKF	Lube Anderol L-730/MIL-L-19701
	LG	SKF	Lube Anderol L-795
	LH	SKF	Lube Shell Aeroshell 7/MIL-G-23827-A1
LHNC	AB	SKF	Same as LHNC-A with width non-conforming to ISO STDS
LHNJ	A	SKF	Inner race of HNJ-A/EX LHNJ-206-A
LHNJ	AB	SKF	Same as LHNJ-A with width non-conforming to ISO stds
LHNU	A	SKF	Inner race of HNU-A/EX LHNU-206-A
LHNU	AB	SKF	Same as LHNU-A with width non-conforming to ISO stds
	LJ	SKF	Lube mobile grease #28/MIL-G-23827-A1
	LK	SKF	Lube Royco grease #27/MIL-G-23827-A1
LL		TYSON	Light-light series cone or cup
	LL	SKF	Lube Americ Oil Co. SUPERMIL ASU-72832/MIL-G-23827-A1
LM		TYSON	Light-medium series cup or cone
	LM	REED	Torque test, modal value of 1200 MG/MM
LP		SKF	Loose boss top roll/EX LP-512-32/textile application
	LP	REED	Torque test, peak torque value of 1200 MG/MM
	LP	SKF	Machined dural cage w/broached pockets
	LPC	SKF	Machined dural cage w/broached pockets, I.R. centered
	LPS	SKF	Machined dural cage w/broached pockets, O.R. centered
	LW1	TYSON	Cone with one special keyway
LZ		SKF	Capped-Bar type top roller/EX LZ-512/textile application
M		BREMEN	Same as B-prefix but differ heat-treat O.R. dimens data
M		REED	Angular contact, narrow series, flanged O.D., flush rings
M		TYSON	Medium series cup or cone
	M	REED	0.0011 radial play
	M	SKF	Machined bronze cage
	M2	SKF	Spherical roller bearing w/roller-riding cage and no guide-ring
	M2	SKF	Traction MTR bearing w/solid brass drill cage, roll-centered
	M5	SKF	Solid silic-iron bronze cage/all variations of M apply
	MA	SKF	Lube master lubricant M-31
MB		SKF	Lockwasher/EX MB-18
	MB	SKF	Lube N.Y. N.J. W-56/MIL-G-18709-A3
MBL		SKF	Lockwasher/EX MBL-36
	MC	SKF	Lube Socony vacuum BRB lifetime
	MC	SKF	Machined bronze cage centered in inner race
	MC5	SKF	Cage-same as MC, exc silicone iron bronze material
	MD	SKF	Lube Shell Cyprina #3
	MG	SKF	Lube Shell Alvania B/AAR spec. M-917-56
	MH	SKF	Lube Fiske Bros. Lubriplate 107
	MJ	SKF	Lube Shell Alvania #3
	MK	SKF	Lube Shell Darina #2
	MN	SKF	Lube Shell Darina AX
	MO	SKF	Lube Tex 1909 Journl RB grease H/AAR spec. M-917-63 grade B
	MP	SKF	Machined bronze cage with broached pockets
	MPC	SKF	Cage-same as -MP except centered in inner race
	MPC5	SKF	Cage-same as -MPC, except silicone iron bronze material
	MPS	SKF	Cage-same as -MP except centered in the outer race
	MPS5	SKF	Cage-same as -MPS, exc silicon iron bronze material
	MR	SKF	Lube Texaco 2301 RB grease/AAR spec M-917-63 grade A
	MS	SKF	Lube Esso Arapen RB-350/AAR spec. M-917-63 grade A
	MS	SKF	Machined bronze cage centered in the outer race
	MS5	SKF	Cage-same as -MS, except silicon iron bronze material
	MT	SKF	Lube Richfield Rocolube/AAR spec M-917-63 grade A
	MU	SKF	Lube Shell alvania C/AAR spec M-917-63 grade B
	MW	SKF	Lube Mobil Plex EP-2/MIL-G-18709-A3

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MFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition
	MX	SKF	Lube Non-fluid Oil Co. F-924-AF
	MY	SKF	Lube Union Oil of California UNOBA #1
N		REED	Deep groove, inch series, straight O.D. flush rings
N		SKF	Cylindrical bearing w/two flanges in I.R. no flanges in O.R.
N		SKF	Locknut/EX N-08/Phila only
	N	REED	0.0012 radial play
	N	SKF	Groove in outer race but without snap-ring/EX 6205-N
	N	TYSON	Tyson series only
NA		TYSON	Non-adjustable cone/factory adjust/used w/double cup
	NA	REED	Torque test, average value of 1300 mg/mm
	NA	SKF	Lube Shell B B/MIL-G-10924B
	NB	SKF	Lube Aeroshell #14/MIL-G-25537-A1
NF		SKF	Cylindrical bearing w/two flanges in I.R. one flange in O.R.
	NFR	TYSON	Full-roll cone in Tyson series
NH		SKF	Same as N.J., plus stabilizing ring
NJ		SKF	Cylindrical bearing w/one flange in I.R. two flanges in O.R.
	NM	REED	Torque test, modal torque value of 1300 mg/mm
NN		SKF	2-or more-row cylindrical bearing/flanged inner, flangless outer
NN	K	SKF	Same as NN-, exc 1-to-12 taper bore/EX NN-3007-K/
NP		SKF	CYL brg, 2-flange inner, 1-flange outer w/plate
	NP	REED	Torque test, peak value of 1300 mg/mm
	NR	SKF	Snap ring on outer ring
NU		SKF	Cylindrical bearing w/no flanges in I.R. two flange in O.R.
NUP		SKF	Cylindrical bearing, 2-flange outer, 1-flange inner w/plate
	NW	TYSON	Slotted front face on Na-type cone
	NW2	TYSON	Cone with 2 special Woodruff keys
	NW4	TYSON	Cone with 1 keyway extended through cone bore
P		REED	Deep groove, inch series, flanged O.D., flush rings
P		SKF	Lock-plate for locknut/EX P-76/
P		SKF	Spherical roller bearing w/split O.R./EX 22320-P/
PK		SKF	Pendulum weighting arm/EX PK-101/textile application
	Q	SKF	Quiet running bearing
	QA	REED	Torque test, average torque value of 1400 mg/mm
	QM	REED	Torque test, modal torque value of 1400 mg/mm
	QP	REED	Torque test, peak torque value of 1400 mg/mm
R		REED	Deep groove, inch series, straight O.D., extended inner ring
R		SKF	Small size single row; deep-groove ball bearing/EX r-9
	RA	REED	Torque test, average torque value of 1500 mg/mm
	RA	SKF	Lube Dow Corning DC-33/light
	RB	SKF	Lube Dow Corning DC-44/light/MIL-L-15719-A3
	RB	TYSON	Cup with snap ring
	RD	SKF	Lube Dow Corning DC6 silicone
RGNU-F		SKF	Outer ring cage roller assembly stave type G series bearings
RHNU		SKF	Same as RHNU-J with with non-conforming to ISO stds
RHNU	BJ	SKF	Outer ring roller assy of HNJ-A and HNU-A/RHNU206-J
RHNU	J	SKF	Same as RP, exc with 454 agricultural seal bearing series
RL		SKF	Followed by non-significant NOS/spec intern RAD clear
	RL	SKF	Torque test, modal torque value of 1500 MG/MM
	RM	REED	Torque test, modal torque value of 1500 MG/MM
RN		SKF	Cylindrical roller bearing, 2-flange inner, no outer ring/ EX RM-210/
RN		SKF	Removal nut for SK-sleeve/EX RN-12
RNU		SKF	Cylindrical roller bearing, 2-flange outer, no inner ring/ EX RNU-210
RP		SKF	Rubber mounted cylindrical cartridge unit/EX RP-14
	RP	REED	Torque test, peak torque value of 1500 mg/mm
	RS	SKF	Seal of plate and synthetic rubber on one side
	2RS	SKF	Seal of plate and synthetic rubber on both sides
	RSNBR	SKF	Same as-RSNB, except with snap-ring
	RSNR	SKF	Same as-RSN, except with snap-ring
	RSZ	SKF	RS-seal on one side, Z-plate on the other side

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MFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition
S		SKF	Adapter sleeve/EX S-15, part of SNW -15
	S	SKF	Dimensional variation from basic cone
SA		REED	Same as A-prefix, exc 440-C S/steel in lieu of std 52100
	SA	REED	Torque test, average torque value of 1600 mg/mm
	SA	SKF	Lube Keystone M-89 silicone
SAF		SKF	Split pillow block housing w/triple seals/EX SAF-609
SAFS		SKF	SAF pillow block of cast steel
SB		REED	Same as B-prefix, exc 440-C S/steel in lieu of std 52100
	SB	SKF	Lube Dow Corning DC-4 silicone
SC		REED	Same as C-prefix, exc 400-C S/steel in lieu of std 52100
	SC	SKF	Lube American Oil Co. SUPERMIL ASU-M-100
SD		REED	Same as D-prefix, exc 440-C S/steel in lieu of std 52100
SD		SKF	SY in ductile iron, non-relube, with 479 series bearing
	SD	SKF	Lube American Oil Co. SUPERMIL ASU-M-40
SD		SKF	SY in ductile iron, re-lube, with 479 series bearing
SDAF		SKF	Split pillow block housing w/triple seals/EX SDAF-530
SDAFS		SKF	SDAF pillow block of cast steel
SDH		SKF	SYH in ductile iron, non-relube, with 479 series bearing
SDH		SKF	SYH in ductile iron, re-lube, with 479 series bearing
SDHL		SKF	SYHL in ductile iron, non-relube, with 454 series bearing
SDHL		SKF	SYHL in ductile iron, re-lube, with 454-VSB series bearing
SDHP		SKF	SYHP in ductile iron, non-relube, with 478 series bearing
SDHP		SKF	SYHP in ductile iron, re-lube, with 478-VSB series bearing
SDHX		SKF	SYHX in ductile iron, non-relube, with 477 series bearing
SDHX		SKF	SYHX in ductile iron, re-lube, with 477 series bearing
SDL		SKF	SYL in ductile iron, non-relube, with 454 series bearing
SDL		SKF	SYL in ductile iron, re-lube with 454-VSB series bearing
SDP		SKF	SYP in ductile iron, non-relube, with 478 series bearing
SDP		SKF	SYP in ductile iron, re-lube, with 478-VSB series bearing
SDX		SKF	SYX in ductile iron, non-relube, with 477 series bearing
SDX		SKF	SYX in ductile iron, re-lube, with 477 series bearing
SE		REED	Same as E-prefix, exc 440-C S/steel in lieu of std 52100
	SE	SKF	Lube Dow Corning pneumatic grease 55-M/MIL-L-4343
SF		REED	Same as F-prefix, exc 440-C S/steel in lieu of std 52100
	SF	SKF	Lube G-300 GE versilube
SG		REED	Same as G-prefix, exc 440-C S/steel in lieu of std 52100
	SG	SKF	Lube American Oil Co. SUPERMIL M-125
SH		REED	Same as H-prefix, exc 440-C S/steel in lieu of std 52100
	SH	SKF	Lube Mobil grease 24
SJ		REED	Same as J-prefix, exc 440-C S/steel in lieu of std 52100
	SJ	SKF	Lube American Oil Co. SUPERMIL ASU-31052/MIL-G-25013D
SK		SKF	Removable sleeve/EX SK-28
	SK	SKF	Lube Mobil temp #1
SL		SKF	Same as SP, exc with 454 agricultural seal bearing series
	SM	REED	Torque test, modal torque value of 1600 mg/mm
SN		REED	Same as N-prefix, exc 440-C S/steel in lieu of std 52100
SNP		SKF	Adapter with nut and lockplate/EX SNP-3098
SNW		SKF	Adapter with nut and lockwasher/EX SNW-08
SP		REED	Same as P-prefix, exc 440-C S/steel in lieu of std 52100
SP		SKF	Pressed steel pillow block/EX SP-102
	SP	REED	Torque test, peak torque value of 1600 mg/mm
SR		BREMEN	Loose needle roller w/flat ground ends/EX SR-902/
SR		REED	Same as R-prefix, exc 440-C S/steel in lieu of std 52100
SR		SKF	SR-23, -24, -25 are idler pulley spindles/textile application/
SR		SKF	SR-270, -290, -3120 are complete tension pulleys/textile application/
SR		SKF	Stabilizing ring for pillow block/EX SR-20-17, SR-1610
SR		SKF	Tape tension pulley/EX SR-23/textile application
SR	B	SKF	Same as SR-, except Parkerized Shell/EX SR-7-B
SR	B	SKF	Same as SR-, except special dimensions/EX SR-23-B
SR	E	SKF	Same as SR-, exc internal flinger Parkerized Shell
SR	H	SKF	Same as SR-, except extra width/EX SR-290-H

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MFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition
SRL		SKF	Same as SRP, exc with 454 agricultural seal bearing series
SRP		SKF	Pressed steel pillow block, rubber mounted/EX SPR-14
SS		REED	Same as S-prefix, exc 440-C S/steel in lieu of std 52100
	SS	REED	One armalon seal
	SS	SKF	Back-up plate seal on one side
	2SS	REED	Two armalon seals
	2SS	SKF	Back up plate seal, on both sides
ST		SKF	Linear motion assembly, held type/EX ST-1232
SW		SKF	Linear motion assy, floating type/EX SW-1232
	SW	TYSON	Dimensional variation from basic cone with keyway
	SW	TYSON	NA-type cone with slotted front-face
	SWE	TYSON	NA-cone, slot front-face extended face-face ground for seal
SY		SKF	Unit ball bearing pillow block, set screw collar/EX SY-100
SYH	X	SKF	Same as SY, exc eccentric collar height/EX SYH- 104-X
SYHL		SKF	Same as SYHP exc with 454 agricultural seal bearing series
SYHP		SKF	Same as SYH, except with 478 bearing series/EX SYHP-102
SYL		SKF	Same as SYP, exc with 454 agricultural seal bearing series
SYP		SKF	Same as SY, exc 478 ser bearing eccentric collar/SYP102
SYR		SKF	Spherical roller bearing pillow block unit/EX SYR-208
	T	REED	Synthetic snap-on type retainer
	T	SKF	Phenolic cage/EX 6305-T
	T	TYSON	Cup with tapered O.D.
	T	TYSON	Tapered bore on cone
	TA	REED	Torque test, average torque value of 1700 mg/mm
	TA	SKF	Lube Standard of N.J. ANDOK B/MIL-G018709-A3
TB		SKF	Ball bearing take-up unit/EX TB-104
	TB	SKF	Lube Texaco 1982 Regal Starfak #3
TBL		SKF	Same as TBP, exc with 454 agricultural seal bearing series
TBP		SKF	Ball bearing take-up unit/EX TBP-104
TBX		SKF	Ball bearing take-up unit/EX TBX-104
	TC	REED	Synthetic inner ring supported retainer
	TC	SKF	Lube Standard of N.J. Esso Aviation General Purpose
	TC	SKF	Phenolic cage, inner ring centered/EX 6204-TC
	TD	SKF	Lube Socony Mobilgrease aero general purpose
	TD	TYSON	Double cone with tapered bore
	TE	SKF	Lube Shell Alvania #2/MIL-G-18709-A3
	TF	SKF	Lube New York New Jersey S-58/MIL-G-18709-A3
	TG	SKF	Lube Master lubricant lubrico M-24-M/MIL-G-18709-A3
	TH	SKF	Lube Shell Cyprina RA
	TJ	SKF	Lube Standard Oil of N.J. Andok BR
	TK	SKF	Lube Imperial Oil Co./Canada/Andok 280
	TL	SKF	Lube Imperial Oil Co./Canada/Esso MP grease M
	TM	REED	Torque test, modal torque value of 1700 mg/mm
	TM	SKF	Lube Texas Regal AFB #2/MIL-G-7711A
	TN	SKF	Lube Keystone 84-HX light
	TN	SKF	Nylon or nylafil cage/EX 6203-TN
	TNQ	SKF	Nylon or nylafil cage, inner ring centered/EC 6205-TNC
	TNS	SKF	Nylon or Nylafil cage, outer ring centered/EX 6205-TNS
	TO	SKF	Lube Shell Alvania EP2
	TP	REED	Torque test, peak torque value of 1700 mg/mm
	TP	SKF	Lube Chevron Oil Co. rpm aviation grease #1
	TS	REED	Synthetic outer ring supported retainer
	TS	SKF	Phenolic cage, outer ring centered/EX 6204-TS
TW		BREMEN	Needle roller thrust race/EX TW-1220-2
TY	R	SKF	Take-up unit without adjusting frame/EX TY-203-R
TY	R-PS	SKF	Take-up unit with adjusting frame/EX TY-203-R-PS-12
	U	SKF	Aligning washer for thrust ball bearing/EX 708-U/Phila
	UA	REED	Torque test, average torque value of 1800 mg/mm
	UA	SKF	Lube Am. Oil Co. SUPERMIL ASU 06752/MIL-G-27560-A3
	UB	SKF	Lube Chevron Oil Co. BRB-2
	UC	SKF	Lube Shell Aeroshell #16/MIL-G-25760

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MFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition
UL	UD	SKF	Lube Mobil Grease #38/MIL-G-81322A
		SKF	Bottom roller bearing/EX UL-11-28/textile application
	UE	SKF	Lube Chevron Oil Co. SRI #2
	UM	REED	Torque test, modal torque value of 1800 mg/mm
	UP	REED	Torque test, peak torque value of 1800 mg/mm
VR	VAA	SKF	Special characteristics in basic size-letters insignificant
	VAB	SKF	Special characteristics in basic size-letters insignificant
	VAC	SKF	Special characteristics in basic size-letters insignificant
		SKF	Separator rolls/EX VR-2/textile application
	VSA	SKF	Special characteristics in bearing series-letters insignificant
	VSB	SKF	Special characteristics in bearing series-letters insignificant
	VSC	SKF	Special characteristics in bearing series-letters insignificant
W		SKF	Grease seal/EX W-2854
		SKF	Grease lock washer/EX W-08
	W	REED	Full ball complement design -no retainer
	W	TYSON	2 ang slots diametrically opposite in cone back-face
	W2	SKF	Bearing meeting special torque requirements
	W3	SKF	Bearing marked to show measured accuracy
	W4	SKF	Hi-point of eccentricity marked on inner ring or sleeve
	W5	SKF	Customers part number marked on bearing
	W6	SKF	Gear side marked on bearing
	W7	SKF	Bearing bore diameter indicated
	W8	SKF	No lube-hole in O.R. of bearing used in SY pillow block
	W10	SKF	Bearing with dulited surfaces
	W11	SKF	Bearing with parco-lubrized surfaces
	W12	SKF	Raceways and rolling elements dulited. All other surfaces parco-lubrized
	W13	SKF	Bearing with parco-lubrized bore and O.D.
	W14	SKF	Dulited rings rolling elements, parco-lubrized bore O.D.
	W15	SKF	All surfaces dulited, except lands supporting cage ride
	W16	SKF	Parco-lubrized inner ring and O.D. of outer ring
	W17	SKF	Dulited capped bearing, except shield or seal tin-coated
	W18	SKF	Bearing w/specific dulited surface or surfaces
	W19	SKF	Bearings with special radial looseness limits
	W20	SKF	Oil holes in outer ring of spherical roller bearing
	W21	SKF	Flush ground bearing w/inner outer rings of equal width/close cross corner tolerances./
	W22	SKF	Spec reduced O.D. tolerance for O.R. -std toler for I.R.
	W23	SKF	Special features for traction motor bearings
	W24	SKF	Special tolerance for seal or shield location on capped bearings
	W25	SKF	Spherical roller bearings w/close outer ring width tolerance
	W26	SKF	Spherical roller bearings w/holes drilled through the inner ring
	W27	SKF	Sy pillow block bearings with a special collar
	W29	SKF	Cylindrical w/special radial looseness interchangeability
	W30	SKF	Bearings with specified parts tin-plated
	W31	SKF	Spher bearings inspected to certain quality control requirement
	W32	SKF	Plates seals inspected to special minimum looseness
	W33	SKF	Spherical roller bearing w/oil holes circumferential groove in O.D.
	W34	SKF	Cage has been 10 percent fluorescent penetrant inspected
	W35	SKF	Spdg bearing w/reduced side run-out of inner ring
	W36	SKF	Bearings that have been quality audited for bore and O.D.
	W37	SKF	Special aircraft bearing identification
	W38	SKF	Wright Aero. quality assurance
	W39	SKF	Allison quality assurance
	W40	SKF	Bearings with silver plated cage
	W41	SKF	Bearings with silver and lead plated cages
W42	SKF	Bearings with silver and lead-indium plated cage	

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MFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition
	W43	SKF	Bearings with chrome plated cage
	W45	SKF	Cadmium plated locknuts and washers
	W50	SKF	Bearings w/double stabilized heat treated inner races
	W51	SKF	Special noise test and carton marking
	W52	SKF	Single cap bearings with marking on side opposite cap
	W53	SKF	Ball bearings modified and flush ground on one face only
	W54	SKF	Special quiet running bearings
	W55	SKF	Bearings with locating holes in the outer ring
	W56	SKF	Lifting holes in face of bearings ring
	W57	SKF	GE motor bearing quality assurance
	W58	SKF	Outer ring marked to show high point
	W59	SKF	Special Ford Motor Co. quality requirements
	W60	SKF	Quality assurance U.S. Navy purchase of G.E. bearings
	W61	SKF	Bearings w/3 tapped holes in the face of the outer ring
	W62	SKF	Cyl bearing-side flanges w/15-to-30 minutes relief angle
	W63	SKF	Marking for deviation from nominal outer-diameter size
	W66	SKF	Blind hole in O.D. of cylindrical roller bearings
	W67	SKF	Cylindrical bearings w/oversize O.D. for greater housing fit
	W70	SKF	Cylindrical w/increased outer ring axial clearance
	W71	SKF	Special marking for Sikorsky bearings purchased by U.S. Navy
	W72	SKF	Cylindrical bearing w/angled flange increased axial clearance
	W73	SKF	Spherical roller bearing with one counterbored hole in outer ring
	W74	SKF	Ball bearing, J-cage type with controlled cage drop
	W75	SKF	Std Conrad ball bearing w/republic rocked tube Hofors balls
	W76	SKF	Four taped holes in each face of outer ring
	W77	SKF	Spherical roller bearing with W33 groove holes/holes cibored plugged/
	W79	SKF	W33 spherical roller with one hole counterbored
	W80	SKF	Special bearing-I.R., O.R. rollers air-melt carburized grade steel
	W81	SKF	Special bearing/I.R. air-melt carburized grade of steel
	W82	SKF	Special bearing/O.R. air-melt carburized grade of steel
	W83	SKF	W81 plus W82, plus standard thru hardened rollers
	W86	SKF	Special bearing/I.R. O.R. std thru hard, rollers carburized grade steel
	W90	SKF	Same as W80, ex carburized grade steel consumable vac-melted
	W91	SKF	Same as W81, ex carburized grade steel consumable vac-melted
	W92	SKF	Same as W82, ex carburized grade steel consumable vac-melted
	W93	SKF	Same as W83, ex carburized grade steel consumable vac-melted
	W96	SKF	Same as W86, ex carburized grade steel consumable vac-melted
	W100	REED	1200 mg/mm max starting torque, 75 gr. load
	W101	REED	1000 mg/mm max starting torque, 75 gr. load
	W102	REED	5400 mg/mm max starting torque, 400 gr. load
	W103	REED	5000 mg/mm max starting torque, 400 gr. load
	W104	REED	4600 mg/mm max starting torque, 400 gr. load
	W105	REED	4200 mg/mm max starting torque, 400 gr. load
	W106	REED	3800 mg/mm max starting torque, 400 gr. load
	W107	REED	3400 mg/mm max starting torque, 400 gr. load
	W108	SKF	Non-standard shield clearance of 0.008 to 0.009 inch
	W109	REED	Extreme corrosion resistance
	W110	REED	Dental drill quality bearing
	W111	REED	Bearing stabilized for 900-F operation
	W115	SKF	W11 bearings with addition of W5 features
	W125	SKF	W12 bearings with addition of W5 features

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MFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Prefix	Suffix	Division	Definition
	W215	SKF	W21 bearings with addition of W5 features
	W216	SKF	W21 bearings with addition of W6 features
	W405	SKF	W40 bearings with addition of W5 features
	W501	SKF	W19 bearings with addition of W36 features
	W502	SKF	W22 bearings with addition of W33 features
	W503	SKF	W4 bearings with addition of W33 features
	W504	SKF	W55 bearings with addition of W33 features
	W505	SKF	W51 bearings with addition of W33 features
	W506	SKF	W31 bearings with addition of W33 features
	W507	SKF	W4 bearings with addition of W31 features
	W508	SKF	W4 bearings with addition of W31 features
	W509	SKF	W26 bearings with addition of W31 and W33 features
	W510	SKF	W33 bearings with addition of W56 features
	W512	SKF	W22 bearings with addition of W31 and W33 features
	W513	SKF	W33 bearings with addition of W26 features
	W514	SKF	W26 bearings with addition of W31 features
	W515	SKF	W4 bearings with addition of W58 features
	W516	SKF	W10 bearings with addition of W33 features
	W517	SKF	Combination of W33 plus W61
	W518	SKF	Combination of W20 plus W26
	W519	SKF	Combination W81 plus W20/used w/special nos. only/
	W521	SKF	Combination of W5 plus W74
	W522	SKF	Combination of W81 plus W33/used w/special nos. only/
	W523	SKF	Combination of W31 plus W76
	W524	SKF	Combination C02 W507
	W525	SKF	Combination W31 W77
	W526	SKF	Combination W506 W515
	W527	SKF	Combination W22 W33 W26
	WA	REED	Torque test, average torque value of 1900 mg/mm
	WA	TYSON	Slotted cone-single angular slot in backface
	WB	TYSON	Two slots diametrically opposite in back-face of cone
	WC	TYSON	Slotted cone-full length slot through bore
	WD	TYSON	Special slotted cone
	WM	REED	Torque test, modal torque value of 1900 mg/mm
	WP	REED	Torque test, peak torque value of 1900 mg/mm
X		TYSON	Experimental or limited production/ex X-68-1/
	X	SKF	Boundary dimensions changed to conform to internat std
	X	TYSON	Cone with keyway
	X	TYSON	Variation from basic cup
	XA	TYSON	Cone spacer
	XB	TYSON	Cone spacer
	XC	TYSON	Cone spacer
	XD	TYSON	Double cone or cup
	XL	TYSON	Cone, cup or assembly sealed with TY-seal
Y	Y	SKF	Pressed brass or bronze cage/ex 6303-Y
	A	SKF	Propeller shaft box/ex Y-5463-A
	YA	REED	Torque test, average torque value of 2000 mg/mm
	YC	SKF	Pressed brass or bronze cage centered on inner race
	YM	REED	Torque test, modal torque value of 2000 mg/mm
	YP	REED	Torque test, peak torque value of 2000 mg/mm
	Z	REED	One stainless steel removable shield
	Z	SKF	Shield on one side/ex 6203-Z/
	2Z	REED	Two stainless steel removable shields
	2Z	SKF	Shield on both sides/ex 6203-2Z
	ZA	REED	Torque test, average torque value of 2100 mg/mm
	ZM	REED	Torque test, modal torque value of 2100 mg/mm
	ZNBR	SKF	Shield snap ring on same side/ex 6206-ZNBR/
	ZNR	SKF	Shield snap ring on opposite sides/ex 6206-ZNR
	ZP	REED	Torque test, peak torque value of 2100 mg/mm

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MFR: SKF INDUSTRIES, INC. (con.)

CODE 52676

Supplementary designation symbols, I.E. prefixes and suffixes, are used to indicate alternative or modified executions of bearings and other products where the basic design remains unchanged. They are used for standard bearings and other standard products but only in exceptional cases for special bearings

Suffix symbols are divided into following four groups-

- Group 1 Immediately following the bearing number, refers to modifications of the internal design not affecting the application of the bearing.
- Group 2 Immediately following the symbol pertaining to group 1, refers to the external design of the bearing.
- Group 3 Immediately following the symbol pertaining to group 2, refers to the cage. Any of these designations followed by a number, except 5, indicates a change in design.
- Group 4 Immediately following the symbol pertaining to group 3, refers to precision classes, internal clearance, special requirements with regard to surface finish, stabilizing, lubrication, etc.

PART NUMBER STRUCTURE AND APPLICATION OF PREFIXES AND SUFFIXES VARIES WITH EACH SKF PRODUCT LINE.

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MFR: SPLIT BALL BEARING DIVISION OF MPB CORP.

CODE 78118

Prefix	Suffix	Definition
-		Standard 52100
3		Special material 440C
5		Special material M50
Primary level prefixes (bearing type)		
T		Inch dimension, instrument precision or airframe series
TK		Thin section, Conrad, equal narrow width races
TKE		Thin section, Conrad, equal wide width races
TKC		Thin section, Conrad, extended inner race
TC		Thin section, single fractured outer race, extended inner race
TCN		Thin section, single fractured outer race, equal width inner and outer race
TW		Thin section, single fractured, integral shields, extended inner race
TWN		Thin section, single fractured, integral shields, equal width inner and outer race
TA		Thin section, angular contact, equal width inner and outer race
TAC		Thin section, angular contact, extended inner race
H		Metric dimension precision ball bearings
HD		Deep groove, fractured race
HA or HAD		Angular contact
HK or HKD		Conrad
HT		Two piece inner
R		Metric dimension precision roller bearings
RF		2 guide flanges on inner race
		1 guide flange on outer race
RU		0 guide flanges on inner race
		2 guide flanges on outer race
RN		2 guide flanges on inner race
		0 guide flanges on outer race
RJ		1 guide flange on inner race
		2 guide flanges on outer race
RAA		1 guide flange on inner race
		1 guide flange on outer race
RNH		2 guide flanges on inner race, no outer
RUS		2 guide flanges on outer race, no inner
RY		RY with snap ring retention
ROO		Retainer and roller set only
D		Commercial quality inch dimension double-row thin section ball bearing
S		Commercial quality inch dimension single-row thin section ball bearing
Secondary level prefixes (separators)		
F		Full ball complement
R		Machined phenolic retainer
B		Machined bronze retainer
S		Stamped steel one piece retainer
H		Machined steel
M		Molded plastic retainer
Z		Silicon-iron-bronze retainer
T		Stamped ribbon retainer
A		Alternate undersize ball spacers
P		Spring spacers
L		Teflon tube spacers
O		Teflon O-ring spacers

MIL-HDBK-203C
 5 January 1977

MFR: SPLIT BALL BEARING DIVISION OF MPB CORP. (con.)

CODE 78118

Prefix	Suffix	Definition
Third level prefixes (shield/seal)		
S		Single shield
SS		Double shield
Z		Single seal
ZZ		Double seal
LL		Low torque labyrinth seal
DD		Molded lip shields
Primary suffixes (tolerances)		
	SU	Super ultra-precision (ABEC-7P or -7T)
	U	Ultra-precision (ABEC-5P or -5T)
	P	Precision
	S	Industrial quality
	P7	ABEC-7, RBEC-7
	P5	ABEC-5, RBEC-5
	P3	ABEC-3, RBEC-3
	P1	ABEC-1, RBEC-1
Secondary suffixed (radial play)		
	(0)	AFBMA range 0
	(2)	AFBMA range 2
	(3)	AFBMA range 3
	(4)	AFBMA range 4
Third suffixes (preload) may be followed by preload in pounds		
	DB	Back-to-back mounting
	DF	Face-to-face mounting
	DT	Tandem mounting
	DU	Universal duplex
Fourth suffix (lubrication code - will be followed by lube code number)		
	LD	No lubrication or dry bearings
	LO	Oil lubrication
	LG	Grease lubrication
	LY	Other MPB-approved lubricants
	LOV	Oil vacuum impregnated into the retainer
	LOC	Oil lubrication and the bearing centrifuged
	LOVC	Oil vacuum impregnated into the retainer and centrifuged to remove excess
	LGP	Grease plated

MIL-HDBK-203C
5 January 1977

FR: SPLIT BALL BEARING DIVISION OF MPB CORP. (con.)

CODE 78118

How to read Split Ball bearing Division part numbers

EXAMPLE:

3 TKE T SS 8-18 P5 (3) DB 8/10 L02

440C Stainless steel
Inch dimension instrument bearing, Conrad, equal wide races
Ribbon retainer
Double shields
Basic bearing number
ABEC-5
AFBMA range 3 clearance
DB preload 8 to 10 pounds
Oil lubricant Anderol L401D

HAD B 105 P7

Metric dimension angular contact ball bearing
One piece machined bronze retainer
Basic bearing number
ABEC-7

Note: A dash number may be substituted for all suffixes to cover a number of special features.

MIL-HDBK-203C
 5 January 1977

MFR: THOMSON INDUSTRIES, INC.

CODE 83049

Prefix	Suffix	Definition
A		Precision grade ball bushing
ADJ		Adjustable diameter ball bushing
B		Commercial grade ball bushing
INST-SS		Instrument type ball bushing
OPN		Open type ball bushing
	SS	Stainless steel construction, A, XA, ADJ, and OPN in stainless steel
XA		Super precision ball bushing
XA	SS	Super precision ball bushing

PB-A Pillow block including ball bushing
 PB-ADJ Pillow block adjustable diameter
 PB-OPN Pillow block open type ball bushing
 Super ball bushings - open and standard type
 Seals, standard and stainless steel, for above ball bushings
 Pillow blocks for super ball bushings
 Retaining rings, standard and stainless steel for ball bushings
 Resilient mounts for ball bushings
 Combination bearing used with ball bushings
 Nylined bearings
 Die set ball bushings
 Mill drill tabel, X-Y type, anti-friction
 Roundway bearings
 Roundway bearing seals
 Case-hardened, "60 case", shafting
 Support block for shafting
 Support rails for shafting
 Waymounts for shafting
 Bronze case shafting

An example of our part number structure is as follows:

The Thomson A-162536 ball bushing designation is based on a nominal 1/16 inch. In other words, the "16" represents 16/16 inch internal diameter of 1 inch, the "25" represents 25/16 inch, the outer diameter or 1.56 inch and the "36" represents 36/16 inch, the overall length of 2.25 inches. In general, the 1/16 inch principle applies to all our bearings. The dimensions of other products are similarly designated, in inches, or referenced in our catalogs.

MIL-HDBK-203C
 5 January 1977

THE TIMKEN COMPANY

CODE 60038

Prefix	Suffix	Cone or Cup	Explanation
A		Cone and cup	Standard basic series part number Examples: A2031 cone, A2126 cup
	A	Cone	Different bore from standard basic part number. Examples: 495A vs 495 (non-interchangeable) 567A vs 567 (non-interchangeable)
	A	Cone	Different radius from standard basic part number. Examples: 350A vs 350 (350 has larger radius) 464A vs 464 (464 has larger radius)
	A	Cup	Different O.D. from standard basic part number. Example: 493A vs 493 (non-interchangeable)
	A	Cup	Different radius from standard basic part number. Example: 452A vs 452 (452A has larger radius)
	A	Cup	Different length from standard basic part number. Example: 394A vs 394 (non-interchangeable)
	AA	Cone and cup	Different bore or O.D., or length and radius from standard basic part number. Example: 495AA vs 495A or 495
	AB	Cup	Flanged cup (non-interchangeable with standard basic part number). Example: 572AB vs 572
	AC	Cup	Different O.D. or length and radius from standard basic part number). Example: 453AC vs 453 (non-interchangeable)
	AD	Cup	Double cup (non-interchangeable with standard basic part number). Example: 592AD vs 592 (592 is single cup)
	AS	Cone and cup	Different bore or O.D. or length and radius from standard basic part number. Examples: 372AS vs 372 (non-interchangeable) 385AS vs 385 (non-interchangeable)
	AW	Cone and cup	Keyway or slotted cone or cup. Example: 389AW vs 389A (non-interchangeable)
	AX	Cone and cup	Different bore or O.D. or length and radius from standard basic part number. Examples: 453AX vs 453 (non-interchangeable) 495AX vs 495 (non-interchangeable)
	B	Cup	Flanged cup (non-interchangeable with standard basic part number). Example: 572B vs 572
	B	Cone	Cone using brass cage.
	BS	Cup	Flanged cup (non-interchangeable with standard basic part number). Example: 332BS vs 332
	BW	Cup	Flanged cup with slot (non-interchangeable with standard basic part number). Example: 432BW vs 432
	C	Cup	Dimensionally different from standard basic part number. (non-interchangeable). Example: 534C vs 534
CN		Cup	Neoprene cushioned cup. Example: CN-07237
	CP	Cone and cup	Flash chrome plated. Otherwise, interchangeable with standard basic part number. Examples: 18200CP (suffix electric pencil etched) 18337CP (suffix electric pencil etched)
	CR	Cone and cup	Rib cup bearing series.
	D	Cone and cup	Double cone or double cup (non-interchangeable with standard basic part number). Examples: 581D vs 581 (581 is single cone) 572D vs 572 (572 is single cone)

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MFR: THE TIMKEN COMPANY (con.)

CODE 60038

Prefix	Suffix	Cone or Cup	Explanation
	DA	Cone	Double cone (non-interchangeable with cones having same basic part number). Example: 378DA vs 378DE
	DA	Cup	Spherical O.D. double cup (non-interchangeable with standard basic part number or other double cups having same basic numbers). Examples: 472D vs 472DD
	DB	Cup	Double cup with flange (non-interchangeable with standard basic part number or other double cups having same basic numbers). Example: 09195DB vs 09195
	DC	Cup	Double cup with hole for locking pin.
	DD	Cone and cup	Special long double cone or cup (non-interchangeable with standard basic part number or other double parts having same basic numbers). Example: 563DD
	DE	Cone and cup	Double cone or double cup having different dimensions or other characteristics from single and double parts identified with same basic number. Examples: 376DE vs 376 and 376DW (non-interchangeable) 792DE vs 792 and 792D (non-interchangeable)
	DGW	Cone	Double cone with pressure removal groove in bore, and having face slots.
	DP	Cone	Double cone with puller groove.
	DR	Cup	Double cup for rib cup series (non-interchangeable with single and double cups identified with same basic number).
	DS	Cup	Crowned O.D. double cup (non-interchangeable with other cups having same basic part numbers). Example: 95927DS vs 95927D
	DT	Cup	Tapered O.D. double cup (non-interchangeable with other cups having same basic part numbers). Example: 473DT
	DW	Cone and cup	Double cone or double cup with keyway or slot (non-interchangeable with cones or cups identified with same basic part numbers). Examples: 378DW vs 378DA 128170DW vs 128170DA
	DX	Cup	Adaptor for spherical or straight O.D. cup. Example: 128196DX (adaptor for 128170DA cup)
	DX	Cup	Threaded O.D. double cup (non-interchangeable with cups identified with same basic part numbers).
	E	Cone and cup	Cones or cups having special characteristics differing from and non-interchangeable with other cones or cups identified with the same basic part numbers. Examples: 6E (extra large O.D.) 742E (rotary ground front face)
	ED	Cup	Double cup (non-interchangeable with other cups identified with same basic part numbers). Example: 384ED vs 384AD
EE		Cone	Double rib - close guided rollers (non-interchangeable with other cones identified with same basic part numbers). Example: EE141250D vs 141250D
EH		Cone and cup	Extra heavy series.
EL		Cone and cup	Extra light series.
EX		Cone and cup	Experimental.
F		Cone and cup	Factory identification only. Not part of number and unrelated to physical dimensions (interchangeable with other cones and cups having same basic part numbers).

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CODE 60038

Prefix	Suffix	Cone or Cup	Explanation
H		Cone and cup	Heavy series (non-interchangeable with other cones and cups identified with same basic part numbers). Examples: H242649 H242610
HH		Cone and cup	Heavy-heavy series (non-interchangeable with other cones and cups identified with same basic part numbers). Examples: HH926749 vs HM926749 HH926710 vs HM926710
HM		Cone and cup	Heavy-medium series (non-interchangeable with other cones and cups identified with same basic part numbers). Examples: HM926749 vs HH926749 HM926710 vs HH926710
J		Cone and cup	Standard basic series part number, metric cone bore and cup O.D. Examples: JLM104948 vs JLM104910 cup JH307749 cone vs JH307710 cup
	K	Cone and cup	Factory identification only. Not part of number and unrelated to physical dimensions. (Interchangeable with other cones and cups having same basic part numbers).
L		Cone and cup	Light series. (Non-interchangeable with other cones and cups identified with same basic part numbers).
	L	Cone	Cone assembled with duo-faced seals.
LL		Cone and cup	Light-light series.
LM		Cone and cup	Light-medium series.
M		Cone and cup	Medium series.
	MM	Cone and cup	Factory identification only. Not part of number and unrelated to physical dimensions (interchangeable with other cones and cups having same basic part numbers).
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, O.D. length dimensions).
	NA	Cup	Suffix electric pencil etched on double cups mated with two "NA" type single cones to form double row non-adjustable bearings.
	NC	Cup	Cushioned cup (usually neoprene).
	NR	Cone	"NA" type ribless cone for rib cup series.
	NW	Cone	"NA" type cone with slotted front face.
	NX	Cone	Lapped front face
	P	Cone	Puller groove.
R		Cone and cup	Gilliam replacement series. (Non-interchangeable with other cones and cups identified with same basic number).
RC		Cone and cup	Special ribbed cup bearing.
	R	Cone and cup	Bock type bearing. Examples: 6358-R and 6552-R
	RB	Cup	Snap ring on O.D. Examples: 3822-RB, 15523-RB
	S	Cone and cup	Special feature bearing. Not interchangeable with bearings having same basic part numbers.
	SA	Cone and cup	Special feature bearing. Not interchangeable with bearings having same basic part numbers.
	SB	Cone	Cone with brass cage.
	SB	Cup	Flanged cup.
	SC	Cone	Cone with square bore.
	SD	Cone and cup	Double cone with square bore or double cup.
	SW	Cone and cup	Slot or keyway. Not interchangeable with bearings having same basic part numbers.
SX			Special experimental.

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MFR: THE TIMKEN COMPANY (con.)

CODE 60038

Prefix	Suffix	Cone or cup	Explanation
T		Cone	Thrust bearing assemblies. Examples: T-76, T-176, T-811
	T	Cone	Tapered bore.
	TA	Cup	Tapered O.D.
	TA	Cone	Tapered bore "NA" type cone.
	TB	Cup	Tapered O.D.
TC		Cone	Tapered bore cone with brass cage.
		Cone	Thrust bearing assemble. Example: TC-702
	TD	Cone	Tapered bore double cone.
	TDL	Cone	Tapered bore, double cone, with interlock feature.
	TE	Cone	Tapered bore cone with extended rib.
	TL	Cone	Tapered bore with interlock feature.
	TLE	Cone	Tapered bore with interlock feature and extended width.
U	TP	Cone	Tapered bore cone with puller groove.
	TW	Cone and cup	Tapered cone bore or cup O.D. with slots or keys.
		Cone and cup	Standard basic series part number, unitized self-contained bearing. Example: U399 cone, U360L cup
V		Cone and cup	Obsolete type bearing design. Not part of number and no relation to physical dimensions.
	W	Cone and cup	Slot or keyway.
	W	Cone	Type #2 slot.
	WA	Cone	Type #1 slot.
	WB	Cone	Type #3 slot.
	WC	Cone	Type #4 slot.
	WD	Cone	Special type slot.
	WE	Cone and cup	Extended keyway cone or cup.
	X	Cone	Slot or keyway.
	X	Cone and cup	Special feature bearing. Not interchangeable with bearings having same basic part numbers. Examples: 350X - smaller bore 496X - larger bore 525X - different radius
	XC		Cone and cup
XD		Cone and cup	Double.
XW		Cone	Slotted.
YD		Cup	Double.
			NOTE: Most Timken symbols are die stamped as part of the bearing number, however there are many cases where our automotive and industrial applications require special considerations in bearing designs and tolerances. To be certain future cone and cup replacements are made correctly, the factory supplements imprinted identifications with electric penciling to add prefixes and suffixes to the imprinted part numbers. These additional markings become important to the user for proper bearing identification and replacement. Make it a habit to ask: "Are there any electric pencil markings on the cone or cup?"

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THE TORRINGTON COMPANY (NEEDLE BEARINGS)

CODE 60380

Prefix	Suffix	Definition
	A	Oxide black shell (drawn shell needle bearings).
	A	No cotter pin hole (RT, HRT, RS, HRS bearings).
	AA	Oxide black shell and oxide black rollers (drawn shell needle bearings).
	AS	Oxide black shell and stainless steel rollers (drawn shell needle bearings)
B		Drawn shell needle bearing, single-row or rollers, no inner ring, open end, regular roller series, inch dimensions.
	B	Brass shell (drawn shell needle bearings).
BH		Drawn shell needle bearing, single-row of rollers, no inner ring, open end, large roller series, inch dimensions.
BL		Drawn shell needle bearing, single-row of rollers, no inner ring, open end, extra-large roller series, inch dimensions.
BN		Cage and needle roller assembly, non-standard size
	C	Exposed surfaces of outer ring chrome plated 0,0004 inch minimum thickness. Exposed surfaces of washer and stud cadmium plated (RT, HRT, RS, HRS bearings).
CR		Cantilever mounted cam follower type needle bearing unit assembly consisting of hardened and ground outer ring, needle rollers, washer, and case hardened and ground stud, inch dimensions.
CRS		CR type cam follower with seals.
F		Drawn shell needle bearing, single-row of rollers, no inner ring, open end, regular roller series, metric dimensions
	F	Lubrication fitting located in flanged end of stud (RT, HRT, RS, HRS bearings).
FA		Needle thrust bearing, retainer and needle rollers only, non-standard size.
FH		Drawn shell needle bearing, single-row of rollers, no inner ring, open end, large roller series, metric dimensions.
FJ		Drawn shell needle roller bearing, with cage, single-row of rollers, no inner ring, open end, regular roller series, metric dimensions.
JH		Drawn shell needle roller bearing, with cage, single-row of rollers, no inner ring, open end, large roller series, metric dimensions.
FNTA		Needle thrust bearing, retainer and needle rollers only, metric dimensions.
FNTH		Roller thrust bearing, retainer and rollers only, metric dimensions.
FNTHA		Roller thrust bearing, retainer, rollers and two thrust washers, metric dimensions
FWS		Cage and roller assembly, single-row of rollers, metric dimensions.
	FS	Plastic clutch retainer with stainless steel springs (RC, RCB clutches).
GB		Drawn shell needle bearing, single-row of rollers, no inner ring, open end, precision ground O.D, regular roller series, inch dimensions
GBH		Drawn shell needle bearing, single-row of rollers, no inner ring, open end, precision ground O.D. large roller series, inch dimensions
	GF	Grease fitting (drawn shell needle bearings)
GM		Drawn shell needle bearing, single-row of rollers, no inner ring, closed end, precision ground O.D. regular roller series, inch dimensions
GMH		Drawn shell needle bearing, single-row of rollers, no inner ring, closed end, precision ground O.D. large roller series, inch dimensions
HJ		Heavy duty needle roller bearing, with cage, single-row of rollers, no inner ring, inch dimensions
HJTT		Heavy duty needle roller bearing, with cage, single-row of rollers, no inner ring, two seals with lips facing outwards, inch dimensions
HJRR		Heavy duty needle roller bearing, with cage, single row of rollers, no inner ring, two seals with lips facing inwards, inch dimensions
HRS		Cantilever mounted airframe cam follower type needle bearing unit assembly consisting of hardened and ground stud. High strength stud made to customer's required grip length. Second numerical figure in bearing designation gives stud grip length in 1/16 inch increments
HRT		Cantilever mounted airframe cam follower type needle bearing unit assembly consisting of hardened and ground outer ring, needle rollers, washer, and case hardened and ground stud. High strength stud made to customer's required total length. Second numerical figure in bearing designation gives stud total length in 1/8 inch increments

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MFR: THE TORRINGTON COMPANY (NEEDLE BEARINGS) (con.)

CODE 60380

Prefix	Suffix	Definition
IR		Inner ring, inch dimensions
IRA		Inner ring, 1/32 inch wider than "IR" type, inch dimensions
J		Drawn shell needle roller bearing, with cage, single-row of rollers, no inner ring, open end, regular roller series, inch dimensions
	J	Exposed surfaces of outer-ring chrome plated and all other exposed surfaces, as mounted, cadmium plated (airframe type bearings)
JH		Drawn shell needle roller bearing, with cage, single-row of rollers, no inner ring, open end, large roller series, inch dimensions
JT		Drawn shell needle roller bearing, with cage, single-row of rollers, no inner ring, open end, regular roller series, one seal, inch dimensions
JTT		Same as JT except two seals
JHT		Drawn shell needle roller bearing, with cage, single-row of rollers, no inner ring, open end, large roller series, one seal, inch dimensions
JHTT		Same as JHT except two seals
	K	Stud slotted to receive a MS27111 washer (RT, HRT, RS, HRS bearings)
M		Drawn shell needle bearing, single-row of rollers, no inner ring, closed end, regular roller series, inch dimensions
MH		Drawn shell needle bearing, single-row of rollers, no inner ring, closed end, large roller series, inch dimensions
ML		Drawn shell needle bearing, single-row of rollers, no inner ring, closed end, extra-large roller series, inch dimensions
MNB		Drawn shell needle bearing, single-row of rollers, no inner ring, closed end, non-standard size
NB		Drawn shell needle bearing, single-row of rollers, no inner ring, open end, non-standard size
NBC		When preceded by one or two digits, indicates a non-separable airframe type needle bearing unit assembly consisting of a through-hardened outer ring, single-row of rollers and a through-hardened inner ring with retaining washers (replacing "AT" series) example: 4NBC612, 14NBC2026
NBE		When preceded by one digit, indicates a non-separable, self-aligning airframe type needle bearing unit assembly consisting of a through-hardened aligning ring, through-hardened outer ring with spherical OD, single-row of rollers and a through-hardened inner ring with retaining washers, (replacing "AT-SA" series) example: 4NBE615, 5NBE717
NBF		When preceded by one or two digits, indicates a non-separable airframe type needle bearing unit assembly consisting of a heavy section through-hardened outer ring, single-row of rollers, and a through-hardened inner ring with retaining washers (replacing "FT" series) example: 3NBF512, 12NBF1628
NBK		When preceded by one or two digits, indicates a non-separable, self-aligning airframe type needle bearing unit assembly consisting of a through-hardened aligning ring, through-hardened outer ring with spherical OD, double-row of rollers and a through-hardened inner ring with retaining washers. (replacing "AT-SDA" series) example: 7NBK1021, 16NBK2036
NBL		When preceded by one of two digits, indicates a non-separable airframe type needle bearing unit assembly consisting of a heavy section through-hardened outer ring, double-row of rollers, and a through-hardened inner ring with retaining washers. (replacing "FDT" series) example: 6NBL1618, 12NBL2830.
NCC		When preceded by one or two digits, indicates a non-separable airframe type needle bearing unit assembly consisting of a drawn shell needle bearing, inner ring with retaining washers (replacing "AR: series) example: 3NCC1010, 14NCC1822
	N	Electroless nickel plate
NJ		Drawn shell needle roller bearing, with cage, single-row of rollers, no inner ring, open end, non-standard size.
NTA		Needle thrust bearing, retainer and needle rollers only, inch dimensions
NTH		Roller thrust bearing, retainer and rollers only, inch dimensions

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MFR: THE TORRINGTON COMPANY (NEEDLE BEARINGS) (con.)

CODE 60380

Prefix	Suffix	Definition
NTHA		Roller thrust bearing, retainer, rollers and two thrust washers, inch dimensions.
	OH	Oil hole (drawn shell needle bearing)
	P	Cadmium plated exposed surfaces as mounted.
Q		Needle roller, any end configuration-OBSOLETE
QA		Needle roller, spherical end configuration
QB		Needle roller, flat end configuration
RC		Drawn cup roller clutch, no inner ring, open end, inch dimensions
RCB		Drawn cup roller clutch and bearing assembly, one bearing on each side of the clutch, no inner ring, open end, inch dimensions
RS		Cantilever mounted airframe cam follower type needle bearing unit assembly consisting of hardened and ground outer ring, needle rollers, washer, and case-hardened and ground stud. Regular strength stud made to customer's required grip length. Second numerical figure in bearing designation gives stud grip length in 1/16 inch increments. OBSOLETE
RT		Cantilever mounted airframe cam follower type needle bearing unit assembly consisting of hardened and ground outer ring, needle rollers, washer and case hardened and ground stud. Regular strength stud made to customer's required total length. Second numerical figure in bearing designation gives stud total length in 1/8 inch increments. OBSOLETE
	S	Stainless steel
SBB		Self-aligning ball bushing, double fractured outer ring inch dimensions
SF		Self-aligning ball bushing, single fractured outer ring, inch dimensions
TRA		Thrust washer 1/32 inch thick (needle thrust bearing)
TRB		Thrust washer 1/16 inch thick (needle thrust bearing)
TRC		Thrust washer 3/32 inch thick (needle thrust bearing)
TRD		Thrust washer 1/8 inch thick (needle thrust bearing)
TRE		Thrust washer 5/32 inch thick (needle thrust bearing)
TRF		Thrust washer 3/16 inch thick (needle thrust bearing)
WJ		Cage and roller assembly, single-row of rollers, inch dimensions
WJC		Cage and roller assembly, single-row of rollers, inch dimensions
Y		Drawn shell needle bearing, single-row of rollers, rollers retained by lubricant, no inner ring, open end, regular roller series, inch dimensions
	Y	Lubricant groove and lubricant holes in inner ring (airframe type bearing)
YCR		Yoke mounted cam follower type needle bearing unit assembly consisting of hardened and ground outer ring, needle rollers, and hardened and ground inner ring with retaining washers, inch dimensions
YCRS		YCR type cam follower with seals
YH		Drawn shell needle bearing, single-row of rollers, rollers retained by lubricant, no inner ring, open end, large roller series, inch dimensions
	Z	Lubricant groove and lubricant holes in outer ring (airframe type bearing)

How to read TORRINGTON needle bearing numbls:

Example: GBH-1616-OHAS

GBH-1616 = Basic bearing number
 -OH = Oil hole in shell
 A = Oxide black shell
 S = Stainless steel roller

Example: CR-12-CP

CR-12 = Basic bearing number
 C = Chromium plated outer ring
 P = Cadmium plated exposed surfaces stud and washer

Example: NTA-1625-NS

NTA-1625 = Basic bearing number
 N = Electroless nickel plated cage
 S = Stainless steel rollers

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MFR: THE TORRINGTON COMPANY (HEAVY BEARINGS)

CODE 8065

Prefix	Suffix	Definition
A	A	Cylindrical inner ring (cylindrical roller bearing)
	A	Self-aligning spherical roller bearing complete with adapter sleeve; nut, and washer, tapered bore
AN		Locknut designation
ARN		Removal nut designation, adapter sleeve, spherical roller bearing
	BA	Annular ball bearing, single-row, counterbored outer ring, angular contact, (angularity greater than 25 degrees), metric dimensions
	BC	Annular ball bearing, single-row, radial; non-loading groove, self-contained, rings flush, metric dimensions
	BH	Annular ball bearing, single-row, counterbored outer ring, primarily radial (very low angularity), rings flush, metric dimensions
	BIA	Annular ball bearing, single-row, counterbored outer ring, angular contact (angularity greater than 25 degrees), inch dimensions
	BIC	Annular ball bearing, single-row, radial, non-loading groove, self-contained, rings flush, inch dimensions
	BIH	Annular ball bearing, single-row, counterbored outer ring, primarily radial (very low angularity), rings flush, inch dimensions
	BR	Bronze retainer
	C8	Stoning of inner and outer ring corners thorough inspection for surface appearance
	C78	RBEC, ABEC-5 precision
	C01	Inner ring with close running accuracy
	C02	Inner ring with extra close running accuracy
	C03	Outer ring with close running accuracy
	C04	Outer ring with extra close running accuracy and marked to show high and low point of eccentricity.
	C05	Inner ring and outer ring with close running accuracy.
	C08	Inner ring and outer ring with extra close running accuracy and marked to show high and low point of eccentricity.
	DU	Ductile iron cage
	HC	Shell #5 or ASU 06752
	HJ	Cylindrical roller bearing, two lip outer ring, stamped steel retainer no inner ring.
IR		Inner race, hardened and ground needle roller bearings
JRN		Two lip inner ring, one inner ring lip separable
	JTD	Journal roller bearing complete with outer ring and roller assembly (no inner race), inch dimensions
	JTDD	Journal roller bearing, two row, complete with outer ring and roller assembly (no inner ring), inch dimensions
	JTE	Journal roller bearing complete with inner and outer rings and roller assembly, inch dimensions
	JTED	Journal roller bearing, two row, complete with inner and outer rings and roller assembly, inch dimensions
	K	Tapered bore, self-aligning spherical roller bearing
	LD	Shell Aeroshell #7A (MIL-G-23827)
	M	Machined land-riding retainer, from cast bronze, CC bronze or ductile iron (cylindrical roller bearing)
	MA	Magnus Magnafilm #31
MB		Lockwasher designation
	MK	Shell Darina #2
	ML	Molube-Alloy #1
	MTD	Journal roller bearing complete with outer race and roller assembly (no inner race), metric dimensions
	MTDD	Journal roller bearing, two row, complete with outer ring and roller assembly (no inner ring), metric dimensions
	MTE	Journal roller bearing complete with inner and outer rings and roller assembly, metric dimensions
	MTED	Journal roller bearing, two row, complete with inner and outer rings and roller assembly, metric dimensions
	MY	Shell Darina #1
N		Locknut designation
	N	Snap ring groove in outer ring (without snap ring)
	NA	Shell BB (MIL-G-10924B)

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R: THE TORRINGTON COMPANY (HEAVY BEARINGS) (con.)

CODE 80657

Prefix	Suffix	Definition
	NB	Humble Oil Nebula EP2
	NR	Snap ring and groove on O.D. of outer ring
	NX	Nox rust #509 hot-dipped (MIL-C-11796)
R		One lip inner ring (cylindrical roller bearing)
	RDZ	Cylindrical roller bearing, two row, lip inner ring with center flange, cylindrical outer ring, extra heavy outer ring, with retainer, metric dimensions
	RF	Cylindrical roller bearing, two lip inner ring, one lip outer ring, with retainer, metric dimensions
	RIF	Cylindrical roller bearing, two lip inner ring, one lip outer ring, with retainer, inch dimensions
	RIJ	Cylindrical roller bearing, two lip outer ring, one lip inner ring with retainer, inch dimensions.
	RIN	Cylindrical roller bearing, two lip inner ring, cylindrical outer ring, with retainer, inch dimensions
	RIP	Cylindrical roller bearing, two lip inner ring, two lip outer ring, one outer ring lip separable, with retainer, inch dimensions
	RIT	Cylindrical roller bearing, two lip outer ring, two lip inner ring, one inner ring lip separable, with retainer, inch dimensions.
	RIU	Cylindrical roller bearing, two lip outer ring, cylindrical inner ring, with retainer, inch dimensions
	RJ	Cylindrical roller bearing, two lip outer ring, one lip inner ring with retainer, metric dimensions.
RN		Removal nut designation adapter sleeve, spherical roller bearing
	RN	Cylindrical roller bearing, two lip inner ring, cylindrical outer ring, with retainer, metric dimensions
	RP	Cylindrical roller bearing, two lip inner ring, two lip outer ring, one outer ring lip separable, with retainer, metric dimensions
	RT	Cylindrical roller bearing, two lip outer ring, two lip inner ring, one inner ring lip separable, with retainer, metric dimensions.
	RU	Cylindrical roller bearing, two lip outer ring, cylindrical inner ring, with retainer, metric dimensions
	RUA	Cylindrical roller bearing, two lip outer ring, cylindrical inner ring, with cage, self-aligning outer ring, metric dimensions
	RZ	Cylindrical roller bearing two lip inner ring, cylindrical outer ring, extra heavy outer ring, with retainer, metric dimensions
	S	Adapter sleeve, pull type, spherical roller bearing
	S	Stamped steel land-riding retainer (cylindrical roller bearings)
	S	Seal on one side
	SBB	Self-aligning ball bushing, solid spherical O.D. inner ring, spherical I.D. outer ring, diametrically fractured, retaining wire.
	SD	Self-aligning spherical roller bearing, two row
	SF	Self-aligning ball bushing, solid spherical O.D. inner ring, spherical I.D. outer, single fracture.
SK		Adapter sleeve, push type, spherical roller bearing
	SM	S-monel cage
	SR	Self-aligning spherical roller bearing, one row
S		Adapter sleeve, pull type, spherical roller bearing
	SS	Seal on both sides
	TDI	Tapered roller bearing, two row, double cone, two single cups
	TDIE	Tapered roller bearing, two row, double cone, two single cups, double cone with one bore keyway or combination of one bore keyway and one face keyway in each face.
	TDIK	Tapered roller bearing, two row, double cone, two single cups, tapered bore
	TDIS	Tapered roller bearing, two row, double cone, two single cups, steep angle
	TDO	Tapered roller bearing, two row, double cup, two single cones
	TDOD	Tapered roller bearing, two row, double cup with dowel hole, two single cones.
	TDOS	Tapered roller bearing, two row, double cup, two single cones, steep angle
	TE	Shell Alvania #2 (MIL-G-18709)
	TNA	Tapered roller bearing, two row, non-adjustable, double cup, two single cones.

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MFR: THE TORRINGTON COMPANY (HEAVY BEARINGS) (con.)

CODE 80657

Prefix	Suffix	Definition
	TNAD	Tapered roller bearing, two row, non-adjustable double cup with dowel hole, two single cones.
	TNAU	Tapered roller bearing, two row non-adjustable, double cup, wide single cones
	TP	Cylindrical roller thrust bearing, flat seat
	TPS	Cylindrical roller thrust bearing, self-aligning with aligning washer
	TQI	Tapered roller bearing, four row, two double cups, one double cone, two cones
	TQIK	Tapered roller bearing, four row, two double cups, one double cone, two single cones, tapered bore
	TQO	Tapered roller bearing, four row, two double cones, one double cup, two single cups
	TQOK	Tapered roller bearing, four row, two double cones, one double cup, two single cups, tapered bore
	TS	Tapered roller bearing, single row
	TSF	Tapered roller bearing, single row, flange on cup O.D.
	TSR	Self-aligning spherical roller thrust bearing.
	TSS	Tapered roller bearing, single row, steep angle
	TTHD	Tapered roller thrust bearing, flat seat
	TTSX	Tapered roller thrust bearing, flat bottom washer, convex top washer
	TVB	Ball thrust bearing, grooved raceway, flat seat, inch dimensions
	TVL	Ball thrust bearing, angular contact type, flat seat
W		Lockwasher designation
	W	Two lip outer ring
	W4	Inner ring or sleeve to show high point of eccentricity
	W5	Customers part number marked on bearing
	W20	Outer ring with standard oil holes
	W22	Outer ring with close O.D. tolerance and standard tolerances for inner ring
	W25	Outer ring with counter drilled oil hole
	W26	Inner ring with larger than standard radius on one side of the bore
	W27	Inner ring with larger than standard radius on both sides of the bore
	W33	Outer ring with standard oil holes and machined oil groove in center of O.D.
	W40	Rings and rollers made of carburizing grade steel
	W40I	Inner ring only made of carburizing grade steel
	W41	Rings and rollers made of 440-C stainless steel
	W42	Rings and rollers made of stellite
	W43	Rings and rollers made of K monel
	W44	Rings and rollers made of S monel
	W45	Tapped holes in face of outer ring
	W46	Outer ring with undersize O.D.
	W46A	Outer ring with second undersize O.D.
	W47	Inner ring with oversize bore
	W49	Outer ring with oversize O.D.
	W91	Outer ring with reduced O.D. tolerance on low side (mean O.D. minus 0.50 RBEC-1).
	W92	Outer ring with reduced O.D. tolerance on high side (mean O.D. plus 0.50 RBEC-1).
	W94	Inner ring with lubrication holes.
	W97	Inner ring with special bore tolerance
	W98	Inner ring with undersize bore
	YK	Keystone 5P9
	Z	Shield on one side
	ZZ	Shields on both sides

MIL-HDBK-203C
 5 January 1977

MFR: THE TORRINGTON COMPANY (HEAVY BEARINGS) (con.)

CODE 80657

How to read Torrington bearing numbers:

EXAMPLE: 85TQO419BB229G4

85	TQO	419	BB	229	G4
From the three-digit "series" number, it is known this is an inch size bearing "85" is read as "85" approximate bore.	The letter "T", followed by the "QO" code, indicates this is a tapered roller bearing of the four-row type.	These three numbers represent the cage and roller assembly used in this bearing.	Letters in both positions indicate modified inner and outer rings.	Code number "229" explains the bearing modification. In this case it means the bearing is made of case hardening steel.	The letter and number code "G4" indicates the internal clearance of this bearing.

EXAMPLE: 100RPO2R3

100	RP	02			R3
From the two-digit "series" number it is known that this is a metric bearing. The bore size of the bearing is 100 millimeters.	Type code letter "R" indicates this is a cylindrical roller bearing. Letter "P" shows the specific type of design-- double-ribbed inner and single-ribbed outer ring with side plate.	The two digit number is the dimension series of the AFBMA basic plan for boundary dimensions of metric bearings.	The absence of code letters in this position indicates there is no modification to the standard specifications for either inner of outer ring.	The absence of a code number in this position indicates no modification to the basic bearing.	The letter and number code "R3" indicates the internal clearance of this bearing.

EXAMPLE: 100SD22KW33F3

100	SD	22	K W33		F3
From the two-digit "series" number, it is known that this is a metric bearing. The bore size of the bearing is 100 millimeters.	The type code letter "S" indicates this is a spherical roller bearing. The letter "D" shows the specific of design.	The two digit number is the dimension series of the AFBMA basic plan for boundary dimensions of metric bearings.	Letters in both positions indicate modified inner and outer rings.	Not applicable to SD bearings.	The letter and number code "F3" indicates the internal clearance of this bearing.

Custodians:
 Army - AT
 Navy - SH
 Air Force - 11

Preparing activity:
 Navy - SH
 (Project 3110-0436)

Review activities:
 Army - ME, SM, WC
 Navy - AS, OS, YD, EC
 Air Force - 84, 69
 DSA - IS

User activities:
 Army - AV
 Navy - MC, CG