

Interchange Reference Guide

Interchange — Single Row Deep Groove Ball Bearings

DESCRIPTION		INTERCHANGE					
		NSK	SKF	TORR/FAF	FAG	MRC	NTN
Part Number	INCH	Rxx	Rxx	SxxK	Rxx	Rxx	Rxx
	EXTRA SMALL	6xx	6xx	3xK	6xx	3x	6xx
	EXTRA LIGHT	60xx	60xx	91xxK	60xx	1xxK	60xx
	LIGHT	62xx	62xx	2xxK	62xx	2xxS	62xx
	MEDIUM	63xx	63xx	3xxK	63xx	3xxS	63xx
	EXTRA THIN SECTION	68xx	618xx	--	618xx	18xxS	--
	VERY THIN SECTION	69xx	619xx	93xxK	619xx	19xxS	69xx
	THIN SECTION	16xxx	16xxx	--	16xxx	--	--
	MAXIMUM CAPACITY, LIGHT	BL2xx	2xx	2xxW	2xx	2xxM	BL2xx
	MAXIMUM CAPACITY, MEDIUM	BL3xx	3xx	3xxW	3xx	3xxM	BL3xx
	CARTRIDGE TYPE	633xx	--	W3xx	--	3xxC	633xx
		632xx	--	W2xx	--	2xxC	632xx
Part Number Suffix	TWO SEALS (NON CONTACT)	VV	--	--	--	--	LLB
	TWO SEALS (CONTACT)	DDU	2RS	PP	2RSR	ZZ	LLU
	ONE SEAL (CONTACT)	DU	RS	P	RSR	Z	LU
	TWO SHIELDS	ZZ	2Z	DD	2ZR	FF	ZZ
	ONE SHIELD	Z	Z	D	ZR	F	Z
	SNAP RING	NR	NR	G	NR	G	NR
	STEEL CAGE	BLANK	J	BLANK	BLANK	BLANK	BLANK
	BRASS CAGE	M	M	MBR	M	BRZ	L1
	HEAT STABILIZED 200C	X28	S1	--	S1	--	PREFIX TS3
	TIGHT CLEARANCE	C2	C2	H	C2	Tight	C2
	NORMAL CLEARANCE	BLANK	BLANK	R	BLANK	Normal	BLANK
	LOOSE CLEARANCE	C3	EM(C3)	P	C3	Loose	C3
	EXTRA LOOSE CLEARANCE	C4	C4	J	C4	Extra Loose	C4
	ELECTRIC MOTOR GRADE	E	QE6	--	--	--	--

The competitive manufacturers are provided for a convenient source of unit substitution. They can be considered interchangeable in most instances, but for special applications, please consult NSK Engineering. NSK assumes no liability with respect to errors or omissions.

Interchange — Angular Contact Ball Bearings (ABEC 1&3)

DESCRIPTION		INTERCHANGE					
		NSK	SKF	TORR/FAF	FAG	MRC	NTN
Part No.	LIGHT	72xx	72xx	72xx	72xx	72xx	72xx
	MEDIUM	73xx	73xx	73xx	73xx	73xx	73xx
	HEAVY	74xx	74xx	74xx	74xx	74xx	74xx
Part No. Suffix	40° CONTACT	B	B	WN	B	PJ	B
	30° CONTACT	A	--	--	--	BLANK	BLANK
	25° CONTACT	A5	ACD	--	E	--	--
	15° CONTACT	C	CD	--	C	R	C
	MACHINED BRASS CAGE	M	M	MBR	MP	BRZ	L1
	PRESSED BRASS CAGE	Y	Y	BLANK	YP	--	--
	POLYAMIDE CAGE	TY	P	PRC	TVP	BKE	T2
	STEEL CAGE	W	J	--	JP	BLANK	J
	FLUSH GROUND FACES	G	G	BLANK	U0,UA	DU	G
	PETROCHEMICAL	BMPC	BECEBM	--	--	PumpPac*	--

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Interchange — Double Row Ball Bearings

DESCRIPTION		INTERCHANGE				
		NSK	SKF	TORR/FAF	MRC	NTN
Part Number	SELF-ALIGNING, EXTRA NARROW	12xx	12xx	--	--	12xx
	SELF-ALIGNING, NARROW	13xx	13xx	--	--	13xx
	SELF-ALIGNING, WIDE	22xx	22xx	--	--	22xx
	SELF-ALIGNING, EXTRA WIDE	23xx	23xx	--	--	23xx
	DOUBLE ROW, MAXIMUM COMPLIMENT, LIGHT	32xx	52xxE	52xxW	52xxM (K)	32xx
	DOUBLE ROW, MAXIMUM COMPLIMENT, MEDIUM	33xx	53xxE	53xxW	53xxM (K)	33xx
	DOUBLE ROW, CONRAD, LIGHT	52xx	52xxA	52xxK	52xxC (SBK)	52xx
	DOUBLE ROW, CONRAD, MEDIUM	53xx	53xxA	53xxK	53xxC (SB)	53xx
Part Number Suffix	TWO SEALS	2RS	2RS1	PP	ZZ	LLU
	TWO SHIELDS	ZZ	ZZ	DD	FF	ZZ
	SNAP RING	NR	NR	G	G	NR
	POLYAMIDE CAGE	TNG	TN9	PRB	--	T2
	STEEL CAGE	J	BLANK	BLANK	BLANK	J
	TAPERED BORE	K	K	--	--	K
	EXTRA CAPACITY	E	E	--	--	--
	TIGHT CLEARANCE	C2	C2	H	C2	C2
	NORMAL CLEARANCE	BLANK	BLANK	R	BLANK	BLANK
	LOOSE CLEARANCE	C3	C3	P	C3	C3
	EXTRA LOOSE CLEARANCE	C4	C4	J	C4	C4

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Interchange — Cylindrical Roller Bearings

DESCRIPTION		INTERCHANGE		
		NSK	SKF	FAG
Part Number Prefix	SINGLE ROW, NO FLANGES ON OUTER RING	N	N	N
	SINGLE ROW, NO FLANGES ON INNER RING	NU	NU	NU
	SINGLE ROW, 1 FLANGE INNER	NJ	NJ	NJ
	SINGLE ROW, 1 FLANGE OUTER	NF	NF	--
	SINGLE ROW, 1 FLANGE INNER, WITH RETAINING RING	NUP	NUP	NUP
	SINGLE ROW, 1 FLANGE INNER w/STABILIZING RING	NH	NH	NH
	STABILIZING RING	HJ	HJ	HJ
	DOUBLE ROW, FLANGES OUTER/FANGES INNER	NNU/NN	NNU/NN	NNU/NN
Part Number	LIGHT	2xx	2xx	2xx
	MEDIUM	3xx	3xx	3xx
	HEAVY	4xx	4xx	4xx
	EXTRA LIGHT	10xx	10xx	10xx
	LIGHT, WIDE	22xx	22xx	22xx
	MEDIUM, WIDE	23xx	23xx	23xx
Part Number Suffix	POLYAMIDE CAGE	T	P	TVP2
	COMPOSITE HIGH TEMP (200F) CAGE	T7	--	--
	MACHINED BRASS CAGE	M	M	M, M1
	PRESSED STEEL CAGE	W,WS	J	JP1
	HIGH CAPACITY DESIGN	E	EC	E
	FULL COMPLEMENT (NO CAGE)	V	V	V
	TIGHT CLEARANCE	C2	C2	C2
	NORMAL CLEARANCE	BLANK	BLANK	BLANK
	LOOSE CLEARANCE	C3	C3	C3
	EXTRA LOOSE CLEARANCE	C4	C4	C4

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Interchange — High Precision Angular Contact Ball Bearings

DESCRIPTION		INTERCHANGE								
		NSK	*OLD NSK	SKF	FAG	BARDEN	OLD BARDEN	FAFNIR	SNFA	NTN
Part No.	ULTRA LIGHT SERIES	79XX	79XX	719XX	719XX	19XX	-	93XXWI	B	79XX
	EXTRA LIGHT SERIES	70XX	70XX	70XX	70XX	1XX	1XX	91XXWI	X	70XX
	LIGHT SERIES	72XX	72XX	72XX	72XX	2XX	2XX	2XXWI	2	72XX
Part Number Suffix	15° CONTACT ANGLE	C	C	CD	C	C	BLANK	2*	1	C
	25° CONTACT ANGLE	A5	A5	ACD	E	E	2*	3*	3	-
	POLYAMIDE CAGE	TYN	TY	-	-	TMT	-	PRC	P	T2
	PHENOLIC CAGE	TR	T	BLANK	T	TA	BLANK	CR	C	T1
	SEALS	V1V	-	S*	2RSD OR S PREFIX	RR	-	-	/S	-
	DUPLEX UNIVERSAL	DU	DU	DG	DU	DU	D	DU	DU	GD2
	SINGLE UNIVERSAL	SU	SU	G	U	U	-	SU	U	G
	EXTRA LIGHT PRELOAD	EL	EL	-	-	-	-	X	-	GL
	LIGHT PRELOAD	L	L	A	L	L	L	L	L	GN
	MEDIUM PRELOAD	M	M	B	M	M	M	M	M	GM
	HEAVY PRELOAD	H	H	C	H	H	H	H	H	GH
	CERAMIC BALLS	SN24	SN24	HC	HCB*	C*	-	C*	/NS	5S*
	ABEC 7 PRECISION	P4Y	P4	P4A	P4S	BLANK	BLANK	MM*	7	P4
ABEC 9 PRECISION	P2	P2	PA9A	-	ABEC 9	ABEC 9	MMX*	9	P2	

*TYN cage replaces TY, TR cage replaces T. Sealed (V1V) versions are a new option and P4Y tolerance specification replaces P4. P4Y tolerance specification have tighter bore and OD control than ABEC 7 (class 4 or P4) NSK supplies the following bearing series with P4Y tolerance: 7000; 7200;

Interchange — Ultra High Precision Angular Contact Ball Bearings

DESCRIPTION		INTERCHANGE						
		NSK	*OLD NSK	SKF	BARDEN	FAFNIR	SNFA	NTN
Part No.	ULTRA LIGHT ROBUST HIGH SPEED SERIES	XXBNR19	XXBNC19	719XXCE	ZSB19XX	93XXWO,WN,HX	VEBXX	HSB9XX
	EXTRA LIGHT ROBUST HIGH SPEED SERIES	XXBNR10	XXBNC10	70XXCE	ZSB1XX	91XXWO,WN,HX	VEXXX	HSB0XX
	ULTRA LIGHT ROBUST HIGH SPEED SERIES FOR GRINDING SPINDLES	XXBGR19	XXBNT19	-	-	-	-	BNT9XX
	EXTRA LIGHT ROBUST HIGH SPEED SERIES FOR GRINDING SPINDLES	XXBGR10	XXBNT10	-	XXBX48	-	-	BNT0XX
Part Number Suffix	POLYAMIDE CAGE	TYN	TY	BLANK	TMT	PRC	P	-
	PHENOLIC CAGE	TR	T	-	T	CR	C	BLANK
	DUPLEX UNIVERSAL	DU	DU	DG	DU	DU	DU	D
	SINGLE UNIVERSAL	SU	SU	G	U	SU	U	BLANK
	EXTRA LIGHT PRELOAD	EL	EL	-	-	X	-	GL
	LIGHT PRELOAD	L	L	A	L	L	L	GN
	CERAMIC BALLS	H	SN24	HC	C*	C*	/NS	5S*
	STEEL BALLS	S	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK
	ABEC 7 PRECISION	P4Y	P4	P4	BLANK	MMV*	7	P4
	ABEC 9 PRECISION	P2	P2	P2	ABEC 9	MMX*	9	P2

*BNR has replaced BNC series. P4Y tolerance specification replaces P4. P4Y tolerance specification have tighter bore and OD control than ABEC 7 (class 4 or P4) NSK supplies the following bearing series with P4Y tolerance: 7000; 7200; 7900; and BNR.

Interchange — Thrust Angular Contact Ball Bearings

DESCRIPTION		INTERCHANGE			
		NSK	*OLD NSK	SKF	NTN
Part No.	30° ANGULAR CONTACT THRUST BEARINGS	XXBAR10	XXBA10	BTMXXA	HTA0XXADB
	40° ANGULAR CONTACT THRUST BEARINGS	XXBTR10	XXBT10	BTMXXB	HTA0XXADB
Part Number Suffix	POLYAMIDE CAGE	TYN	TY	BLANK	T2
	PHENOLIC CAGE	TR	T	-	T1
	DUPLEX UNIVERSAL	DU	DU	DB	GD2
	SINGLE UNIVERSAL	SU	SU	-	G
	EXTRA LIGHT PRELOAD	EL	EL	-	-
	LIGHT PRELOAD	L	L	A	GN
	CERAMIC BALLS	H	SN24	HC	5S*
	STEEL BALLS	S	BLANK	BLANK	BLANK
	ABEC 7 PRECISION	P4A	P4A	P4A	P4
ABEC 9 PRECISION	P2A	P2A	PA9A	P2	

*BAR and BTR series has replaced BA and BT series.

Interchange — Precision Cylindrical Roller Bearings

DESCRIPTION		INTERCHANGE				
		NSK	*OLD NSK	SKF	FAG	NTN
Part No.	ULTRA LIGHT DOUBLE ROW CYLINDRICAL SERIES	NN39XX	NN39XX	-	-	-
	EXTRA LIGHT DOUBLE ROW CYLINDRICAL SERIES	NN30XX	NN30XX	NN30XX	NN30XX	NN30XX
	ROW CYLINDRICAL SERIES	N10XX	N10XX	N10XX	N10XX	N10XX
Part Number Suffix	NON-METALLIC CAGE	TB	T	TN,TN9	-	-
	BRASS CAGE	MB	M	BLANK	M	G1
	TAPERED BORE	KR	K	UPK	K	K
	LUBE GROOVE AND HOLES ON OUTER RING	E44	-	W33	S	-
	MATCHED CLEARANCE, RINGS NOT TO BE MIXED	CCX	CCX	CX	CX	CXNA
	ABEC 7 PRECISION	P4	P4	SP	SP	P4

*The outer ring machined lubrication groove and holes (E44) is now a standard feature. TB cage replaces T cage, MB replaces M and KR replaces K.

Interchange — Spherical Roller Bearings

DESCRIPTION		INTERCHANGE			
		NSK	SKF	TORR/FAF	FAG
Part Number	VERY LIGHT	239xx	239xx	239xx	239xx
	LIGHT	230xx	230xx	230xx	230xx
	LIGHT, WIDE	240xx	240xx	240xx	240xx
	MEDIUM	231xx	231xx	231xx	231xx
	MEDIUM, WIDE	241xx	241xx	241xx	241xx
	HEAVY	222xx	222xx	222xx	222xx
	HEAVY, WIDE	232xx	232xx	232xx	232xx
	EXTRA HEAVY	213xx	213xx	213xx	213xx
	EXTRA HEAVY, WIDE	223xx	223xx	223xx	223xx
Part Number Suffix	BRONZE CAGE, ONE PIECE, GUIDE RING	CAM,AM	CA,CACM	YM	M
	BRONZE CAGE, TWO PIECE, GUIDE FLANGE	M	MC	BR	MB
	STEEL CAGE, TWO PIECE, GUIDE RING	C,CD	CJ,CC	CJ,VJ	BLANK
	POLYAMIDE CAGE, TWO PIECE	H	--	VCF	TVPB
	TAPERED BORE 1:12	K	K	K	K
	TAPERED BORE 1:30	K30	K30	K	K30
	CARBURIZED STEEL, COMPLETE BEARING	g	ECD	W40	W209
	CARBURIZED STEEL, INNER RING ONLY	g3	ECB	W40I	W209B
	LUBE GROOVE & HOLES OUTER RING	E4	W33	W33	S
	LUBE GROOVE & HOLES OUTER RING, INNER RING	E7*	W513	W33W94	SH40AB
	HOLES ONLY OUTER RING	E3	W20	W20	SY
	HOLES INNER RING & GROOVE	E5	W26	W94	H40AB
	NO RELUBE FEATURES	BLANK	BLANK	BLANK	--
	PLUGS PROVIDED FOR OUTER RING HOLES	E42	W77	W84	H40
	COMBINATION W33, W4, W31	E4P55	C08507	C08W33W4W31	--
	COMBINATION W33, W31	E4U22	W506	W33W31	--
	COMBINATION W33, W26, W31	E7U22	C08W509	W33W94W31	SH40A
	OUTER RING WITH EXTRA CLOSE RUNNING ACCURACY	P52	C04	C04	T52BN
	INNER RING WITH EXTRA CLOSE RUNNING ACCURACY	P53	C02	C02	T52BE
	INNER AND OUTER RING W/EXTRA CLOSE RUNNING ACCURACY	P55	C08	C08	T52BW
	SPECIAL INSPECTION MEASURES	U22	W31	W31	--
	INNER RING AND OUTER RING HEAT STABILIZED TO 200°C	S11	S1	--	--
	TIGHT CLEARANCE	C2	C2	C2	C2
	NORMAL CLEARANCE	BLANK	BLANK	BLANK	BLANK
	LOOSE CLEARANCE	C3	C3	C3	C3
	EXTRA LOOSE CLEARANCE	C4	C4	C4	C4

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MOTION & CONTROL

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