

MODIFICATION CODES

TIMKEN ⁽¹⁾	TIMKEN DEFINITION	SKF ⁽²⁾	FAG ⁽³⁾	NSK ⁽⁴⁾
EJ ⁽⁵⁾	Stamped nitrided steel cage – High Performance	E, EJA, C, CC, CCJA, EC, ECC	E1	EA, C, CD
EM ⁽⁵⁾	One-piece, roller-riding, machined-brass cage – High Performance	CA, ECA, CAMA	M	CA
EMB	One-piece, inner-ring-piloted, machined-brass cage – High Performance	CA, ECA, CAMA	MB	CA
YMB	One-piece, inner-ring-piloted, machined-brass cage	CA, ECA, CAMA	MB	CA
YMD	Two-piece, inner-ring-piloted, machined-brass cage	—	—	—
S1 ⁽⁶⁾	Bearing rings dimensionally stabilized for use at operating temperatures up to 200° C (392° F)	S1	S1	S11
S2	Bearing rings dimensionally stabilized for use at operating temperatures up to 250° C (482° F)	S2	S2	—
S3	Bearing rings dimensionally stabilized for use at operating temperatures up to 300° C (572° F)	S3	S3	—
S4	Bearing rings dimensionally stabilized for use at operating temperatures up to 350° C (662° F)	S4	S4	—
C02	Inner ring with P5 running accuracy, high point of eccentricity marked	C02	T52BE	P5B, P53
C04	Outer ring with P5 running accuracy, high point of eccentricity marked	C04	T52BN	P5C, P52
C08	P5 running accuracy (C02 and C04)	C08	T52BW	P55
C08 C3	P5 running accuracy (C02 and C04), C3 RIC	C083	C3.T52BW	P55, C3
C08 C4	P5 running accuracy (C02 and C04), C4 RIC	C084	C4.T52BW	P55, C4
K	Tapered bore (1:12 on diameter 22, 23, 30, 31, 32, 33, 39 series)	K	K	K
K	Tapered bore (1:30 on diameter 40, 41, 42 series)	K30	K30	K30
W4	Inner ring or sleeve marked to show high point of eccentricity	W4	J26A	—
W6R	Engineered coating on rollers to combat low lube or abrasive contamination	L5DA	J48BB	—
W8	Rings and rollers Timken-coated with Thin Dense Chrome™ – a corrosion-resistant coating	—	—	—
W20	Outer ring with standard lubrication holes, but no lubrication groove	W20	SY	E3
W22	Special reduced O.D. tolerance on outer rings	W22	T50H	S(a,b)
W25	Outer ring with counter drilled lubrication hole	W73	—	—
W31	Bearing inspected to certain quality control requirements	W31	—	U22
W33	Standard lubrication holes and groove in outer ring (FAG drops S from number for sizes larger than 315 mm O.D.)	W33	S	E4
W33X	Outer ring same as W33 but has six holes	W33X	H40CA	—
W37	Special RMS finish (MG or Yankee dryer modification)	—	—	—
W40I	Inner ring only made of carburizing grade steel	ECB (Prefix) or HA3	W209B	g3
W40R	Rollers only made of carburizing grade steel	—	—	g1
W45A	Tapped lifting holes in face of outer ring	W61 or VE553	—	—
W84	Outer ring with standard lubrication holes plugged	W77	H44S, H40	E42
W88	Special reduced bore tolerance on inner ring	—	—	—
W93	Inner ring with keyway in bore	—	—	—
W94	Inner ring lubrication holes and retainer face grooves (SKF and FAG – no retainer)	W26	H40AB	E5
W502	W22, W33 and W45A (where feasible)	W502 (W22 + W33)	S + T50H	—
W507	W31, W33 and W45A (where feasible)	W507 (W31 + W33)	S +	E4U22, E4P53
W509	W31, W33, W94 and W45A (where feasible)	W509 (W26 + W31 + W33)	S.H40A +	E7U22
W525	W31, W33, W84 and W45A (where feasible)	W525 (W31 + W77)	S.H44S, H40	—
W534	W507 and C08	W534 (C08 + W507)	—	—
W906A	C08 + W31 + W33 + W40R - Modification mainly used in paper industry	C083HA3	T52BWW209B	TL-series

⁽¹⁾Timken offers differentiated solutions for many applications. This is only a partial list of common modification codes.

⁽²⁾SKF Explorer available in some sizes. Timken High-Performance EJ, EM, EMB Spherical Roller Bearings are interchangeable with SKF Explorer.

⁽³⁾FAG X-Life available in some sizes. Timken High-Performance EJ, EM, EMB Spherical Roller Bearings are interchangeable with FAG X-Life.

⁽⁴⁾NSK HPS available in some sizes. Timken High-Performance EJ, EM, EMB Spherical Roller Bearings are interchangeable with NSK HPS.

⁽⁵⁾CJ superseded by EJ. YM superseded by EM.

⁽⁶⁾Standard for all Timken Spherical Roller Bearings.

NOTE: Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason. SKF Explorer bearing, FAG X-life bearing and NSK HPS are registered trademarks of their respective companies.