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Ball Bearings With Spherical Outside Surfaces And Extended Inner Ring Width (Includes Eccentric Locking Collars) ANSI/ABMA 15:1991

Secretariat

American Bearing Manufacturers Association

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ERRATA SHEET FOR STANDARD 15-1991

Table 1 Part 1

d = 52.338 should be d = 52.388

Table 2 Part 1

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Table 3 Part 1

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Table 4 Part 1

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Table 5 Part 1

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BALL BEARINGS WITH SPHERICAL OUTSIDE SURFACES AND EXTENDED INNER RING WIDTH (INCLUDES ECCENTRIC LOCKING COLLARS)

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EXTENDED INNER RING WIDTH
(Includes Eccentric Locking Collars)

1. SCOPE

This Standard specifies boundary dimensions and tolerances for bearings with spherical outside surfaces and extended inner ring width and eccentric locking collars. These bearings are frequently mounted in housings having mating internal spherical surfaces to provide alignment at mounting.

Relubrication features are optional and may be designed to interface with the lubrication zones of mating housings so that the bearings will be properly lubricated. The relubrication means in the outer ring, if used, shall be located on one or both sides of the outer ring zones, defined by dimensions in the tables, in such a way that lubricant will satisfactorily feed into the bearing from a housing bore groove covering the zone.

2. SYMBOLS AND DIMENSIONS

A = Width of inner ring eccentric surface
A_1 = Width of collar eccentric surface
ΔA_{1s} = Eccentric locking collar, deviation of a single collar eccentric surface width
B = Nominal inner ring width
B_1 = Overall inner ring width including eccentric locking collar
B_2 = Nominal eccentric locking collar width
ΔB_{2s} = Eccentric locking collar, deviation of a single collar width
C = Nominal outer ring width
C_a = Distance from center of outer ring width to center of lubrication zone
C_b = Width of lubrication zone
d = Nominal bearing and eccentric locking collar bore diameter
Δd_{mp} = Single plane mean bore diameter deviation
V_{dp} = Bore diameter variation in a single radial plane
Δd_s = Deviation of a single bore diameter
d_1 = Eccentric locking collar outside diameter
d_2 = Eccentric locking collar small bore diameter of eccentric surface at theoretical sharp corner
Δd_{2s} = Eccentric locking collar, deviation of a single small bore diameter of eccentric surface
d_3 = Large diameter of inner ring eccentric surface at theoretical sharp corner
D = Nominal bearing outside diameter
H = Eccentricity
ΔH_s = Eccentricity deviation in a single radial plane
r_1 = Chamfer dimension of inner ring eccentric surface
$r_{1s\ min}$ = Smallest single chamfer dimension of inner ring eccentric surface
r_2 = Fillet radius of inner ring eccentric surface
$r_{2s\ max}$ = Largest single fillet radius of inner ring eccentric surface
r_3 = Fillet radius of collar eccentric surface
$r_{3s\ max}$ = Largest single fillet radius of collar eccentric surface
r_4 = Chamfer dimension of collar eccentric surface
$r_{4s\ min}$ = Smallest single chamfer dimension of collar eccentric surface
S = Distance from center of inner ring raceway to inner ring face on side opposite the locking device
S_1 = Distance from center of inner ring raceway to the face of inner ring or locking collar limiting the overall bearing width on the locking device side

Dimensions labeled maximum represent the largest actual value permitted.
Dimensions labeled minimum represent the smallest actual value permitted.