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AS14104

Submitted for recognition as an American National Standard

FEDERAL SUPPLY CLASS
3120

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PREPARED BY AIRFRAME CONTROL BEARINGS GROUP

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AEROSPACE STANDARD

BEARING, PLAIN, SELF-LUBRICATING, SELF-ALIGNING,
LOW SPEED, NARROW, CHAMFERED OUTER RING,
-65 °F TO 325 °F

AS14104
SHEET 1 OF 4

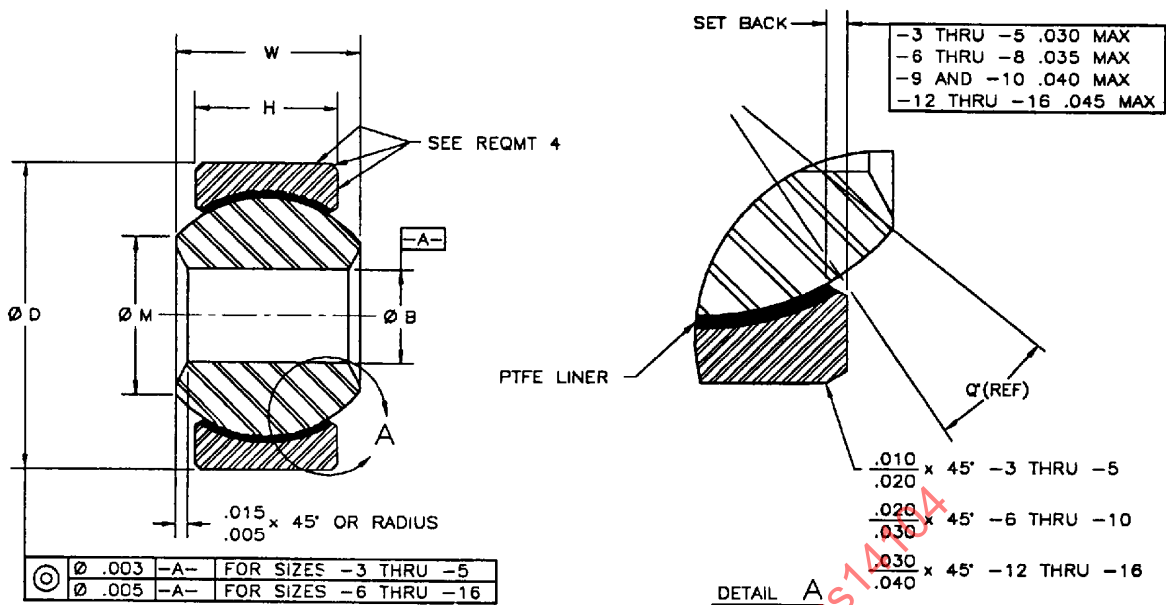


TABLE I. DIMENSIONS AND STRENGTHS

DASH NO.	ϕB +.0000 -.0005	ϕD^{**} +.0000 -.0005	H^{**} $\pm .005$	ϕM MIN	Q^* (REF)	W +.000 -.002	STATIC LIMIT LOAD		OSCILLATING LOAD LB	NO-LOAD ROTATIONAL BREAKAWAY TORQUE IN-LB		WT LB MAX (REF)
							RADIAL LB	AXIAL LB		STANDARD	"K" TYPE	
-3	.1900	.5625	.218	.293	10	.281	3975	150	1500	0.25-5.0	0-0.5	.020
-4	.2500	.6562	.250	.364	10	.343	6040	430	3320			.030
-5	.3125	.7500	.281	.419	10	.375	8750	700	5460	0.25-8.0	0-1.0	.040
-6	.3750	.8125	.312	.475	9	.406	10540	1100	6600			.050
-7	.4375	.9062	.343	.530	8	.437	13200	1400	8050			.070
-8	.5000	1.0000	.390	.600	8	.500	17900	2100	10400			.090
-9	.5625	1.0937	.437	.670	8	.562	23200	3680	13000			.120
-10	.6250	1.1875	.500	.739	8	.625	30500	4720	16450			.210
-12	.7500	1.4375	.593	.920	8	.750	46400	6750	23600	0.25-12.0	0-2.0	.270
-14	.8750	1.5625	.703	.980	8	.875	62200	9350	30250			.390
-16	1.0000	1.7500	.797	1.118	9	1.000	82200	12160	38000			

* SEE REQUIREMENT 5 "NO-LOAD TORQUE" AND NOTE 8.

** SEE NOTE 7.

TABLE II. OVERSIZE BEARING DIMENSIONS 1/ 2/
RESTRICTED USAGE FOR REPAIR WORK ONLY

.010 AND .020 OVERSIZE OUTSIDE DIAMETER FOR
 REPLACEMENT OF BEARINGS SHOWN ON SHEET 1

DASH NO.	NOMINAL SIZE	1st OVERSIZE (.010) ØD
-3	.1875	.5725
-4	.2500	.6662
-5	.3125	.7600
-6	.3750	.8225
-7	.4375	.9162
-8	.5000	1.0100
-9	.5625	1.1037
-10	.6250	1.1975
-12	.7500	1.4475
-14	.8750	1.5725
-16	1.0000	1.7600

DASH NO.	NOMINAL SIZE	2nd OVERSIZE (.020) ØD
-3	.1875	.5825
-4	.2500	.6762
-5	.3125	.7700
-6	.3750	.8325
-7	.4375	.9262
-8	.5000	1.0200
-9	.5625	1.1137
-10	.6250	1.2075
-12	.7500	1.4575
-14	.8750	1.5825
-16	1.0000	1.7700

- 1/ BEFORE INITIATING A REPAIR PROCEDURE TO USE AN OVERSIZE BEARING, APPROVAL FOR MODIFYING AND REIDENTIFYING THE BEARING HOUSING MUST BE OBTAINED FROM THE COGNIZANT ENGINEERING AUTHORITY.
- 2/ REFER TO NAS0331 FOR INSTALLATION PROCEDURE AND STAKING FORCES.

REQUIREMENTS:

- MATERIAL: BALL, 440C AMS-5630 OR PH13-8Mo AMS-5629 H1000 (SEE NOTE 8a).
 OUTER RING, AMS-5643 (17-4PH)
 LINER, PTFE SHALL BE INCLUDED IN THE LINER
- SURFACE TEXTURE: BALL DIA. Ra 8 MAX; BORE, BALL, FACE, AND OUTER RING DIA Ra 32 MAX; ALL OTHERS Ra 125 MAX.
- HARDNESS: BALL, 440C 55-62 Rc OR PH13-8Mo Rc 43 MIN; OUTER RING Rc 28 MIN/Rc 37 MAX BEFORE SWAGING.
- SURFACE FINISH:
 OUTER RING: PLATING, WHEN SPECIFIED, SHALL BE ZINC-NICKEL PLATING PER AMS-2417, TYPE 2, OR CADMIUM PLATING PER QQ-P-416, TYPE II, CLASS 2, WITH A THICKNESS RANGE OF 0.0003 TO 0.0006 INCHES.
 PLATE ON THE OUTSIDE DIAMETER SURFACE AND ON THE CHAMFER. PLATING RUNOUT SHALL OCCUR IN THE SIDE FACE AREA BETWEEN THE CHAMFER AND THE BALL.
 BALL: PH13-8Mo, PASSIVATE PER QQ-P-35; 440C, PASSIVATE PER QQ-P-35, OPTIONAL.
- NO-LOAD TORQUE: WHEN THE LETTER "K" IS PRESENT IN THE PART NUMBER, LOWER VALUES OF NO-LOAD TORQUE ARE SPECIFIED PER TABLE 1. IF THE MEASURED TORQUE OF A "K" TYPE BEARING IS LESS THAN 0.1 INCH-POUND, THE INTERNAL RADIAL PLAY SHALL BE MEASURED AND SHALL NOT EXCEED THE FOLLOWING:

DASH NO.	MAXIMUM RADIAL PLAY	MAXIMUM AXIAL PLAY
-3K THRU -12K	0.0007 INCH	0.0028 INCH
-14K THRU -16K	0.0010 INCH	0.0040 INCH

THE INTERNAL AXIAL PLAY SHALL BE MEASURED FOR ALL "K" TYPE BEARINGS.