

SAE-AS14103

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ISSUED 1997-08

PREPARED BY AIRFRAME CONTROL BEARINGS GROUP



AEROSPACE STANDARD

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

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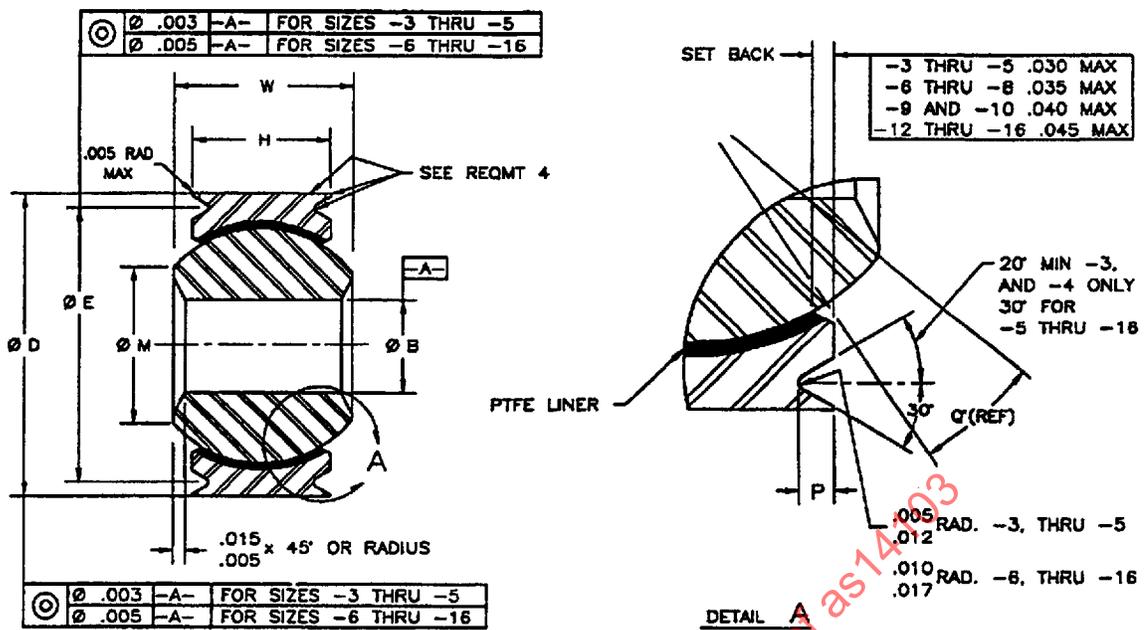


TABLE I. DIMENSIONS AND STRENGTHS

DASH NO.	øB +.0000 -.0005	øD** +.0000 -.0005	H** ±.005	øM MIN	P +.000 -.010	Q' (REF)	W +.000 -.002	øE +.000 -.008	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	.8250	.327	.300	.025	15	.437	.563	2500	1770	4900	0.25-5.0	0-0.5	.031						
-4	.2500								5500											
-5	.3125	.8875	.317	.360	.035	14	.625	.837	8400	1640	6050	0.25-8.0	0-1.0	.035						
-6	.3750	.8125	.406	.466		8			.500						.712	13700	2630	8310		
-7	.4375	.9375	.442	.537		10			.562	.837	20700				3650	11750				
-7A	.4375	.9062	.442	.537		10			.562	.806	19700				3650	11750				
-8	.5000	1.0000	.505	.607		9			.825	.900	21400				4970	14950				
-9	.5625	1.1250	.536	.721		10			.687	1.025	26600				5370	18100				
-10	.6250	1.1875	.567	.747		12			.750	1.087	29000				6130	20250				
-12	.7500	1.3750	.630	.845		13			.875	1.251	37000				7730	26200				
-14	.8750	1.6250	.755	.995		.055			6	.875	1.501				65200	10800	33600	0.25-12.0	0-2.0	.350
-16	1.0000	2.1250	1.005	1.269					12	1.375	2.001				104000	19300	58250			

* SEE REQUIREMENT 5 "NO-LOAD TORQUE" AND NOTE B.
 ** SEE NOTE 7.

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AEROSPACE STANDARD
 BEARING, PLAIN, SELF-LUBRICATING, SELF-ALIGNING,
 LOW SPEED, WIDE, GROOVED OUTER RING,
 -65 °F TO 325 °F

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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) #D
-3	.1875	.6350
-4	.2500	.6350
-5	.3125	.6975
-6	.3750	.8225
-7	.4375	.9475
-7A	.4375	.9162
-8	.5000	1.0100
-9	.5625	1.1350
-10	.6250	1.1975
-12	.7500	1.3850
-14	.8750	1.6350
-16	1.0000	2.1350

DASH NO.	NOMINAL SIZE	2nd OVERSIZE (.020) #D
-3	.1875	.6450
-4	.2500	.6450
-5	.3125	.7075
-6	.3750	.8325
-7	.4375	.9575
-7A	.4375	.9262
-8	.5000	1.0200
-9	.5625	1.1450
-10	.6250	1.2075
-12	.7500	1.3950
-14	.8750	1.6450
-16	1.0000	2.1450

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 FLAT BETWEEN THE OUTSIDE DIAMETER AND THE GROOVE. PLATING RUNOUT MAY OCCUR EITHER IN THE GROOVE OR IN THE AREA BETWEEN THE GROOVE 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	0.0021 INCH
-14K THRU -16K	0.0010 INCH	0.0030 INCH

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