

MS14101 REV J

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THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DOORS SPECIFIED IN THE SOLICITATION: MIL-B-61820

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

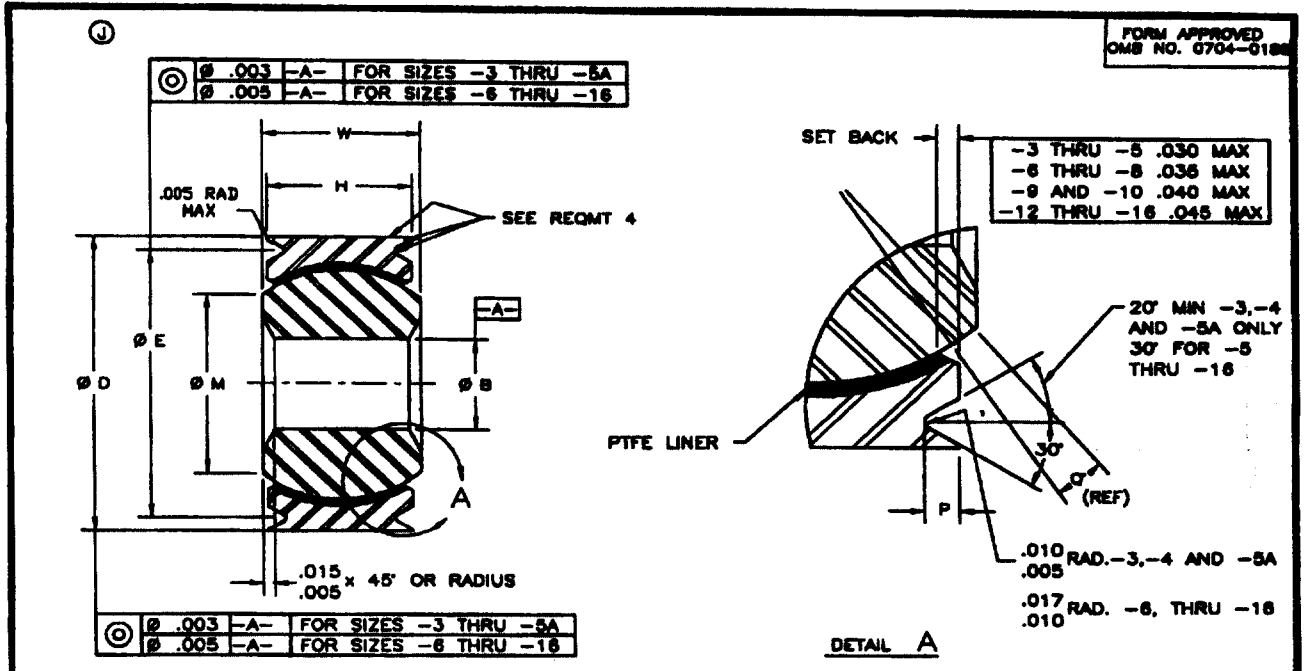


TABLE I. DIMENSIONS AND STRENGTHS

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	.5625	.218	.293	.025	10	.281	.500	3975	150	1500	0.25-5.0	0-0.5	.020
-4	.2500	.6562	.250	.364			.343	.594	6040	430	3320			
-5	.3125	.7500	.281	.419	.035	9	.375	.650	8750	700	5480	0.25-8.0	0-1.0	.030
-5A	.3125	.7500	.281	.419			.375	.660	8750	700	5480			
-6	.3750	.8125	.312	.475	.055	8	.406	.712	10540	1100	6600	0.25-12.0	0-2.0	.040
-7	.4375	.9062	.343	.530			.437	.806	13200	1400	8050			
-8	.5000	1.0000	.390	.600	.055	8	.500	.876	17900	2100	10400	0.25-12.0	0-2.0	.070
-9	.5625	1.0937	.437	.670			.562	.970	23200	3680	13000			
-10	.6250	1.1875	.500	.739	.055	8	.625	1.063	30500	4720	16450	0.25-12.0	0-2.0	.120
-12	.7500	1.4375	.593	.920			.750	1.313	48400	6750	23600			
-14	.8750	1.5625	.703	.980	.055	8	.875	1.438	62200	9350	30250	0.25-12.0	0-2.0	.270
-16	1.0000	1.7500	.797	1.118			1.000	1.626	82200	12160	38000			

* SEE REQUIREMENT 5 "NO-LOAD TORQUE" AND NOTE 8.
 ** SEE NOTE 7.

MS14101-5 INACTIVE FOR NEW DESIGN

Ⓢ DENOTES CHANGES

PREPARING ACTIVITY: NAVY - AS CUSTODIANS: ARMY-AV NAVY-AS AIR FORCE-99 DLA- REVIEW: ARMY-AR, AT, ME, DLA-IS, USAF-84 PROJECT NUMBER: 3120-0742-05 DISTRIBUTION STATEMENT A, APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.	MILITARY SPECIFICATION SHEET TITLE BEARING, PLAIN, SELF-LUBRICATING, SELF-ALIGNING, LOW SPEED, NARROW, GROOVED OUTER RING, -85° TO 325° F	SPECIFICATION SHEET NUMBER MS14101 SUPERSEDING MS14101 AMSC - N/A	REV J 5 DEC 94 REV H 24 JAN 94 FSC 3120
DD FORM 1 MAY 88 672		PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE	

MS14101 REV J ■ 9999912 0087564 T56 ■

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE DRAWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODSS SPECIFIED IN THE SOLICITATION: MIL-B-8182A.

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FORM APPROVED
 OMB NO. 0704-0188

① **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) ϕ D	DASH NO.	NOMINAL SIZE	2nd OVERSIZE (.020) ϕ D
-3	.1875	.5725	-3	.1875	.5825
-4	.2500	.6662	-4	.2500	.6762
-5(A)	.3125	.7600	-5(A)	.3125	.7700
-6	.3750	.8225	-6	.3750	.8325
-7	.4375	.9162	-7	.4375	.9262
-8	.5000	1.0100	-8	.5000	1.0200
-9	.5625	1.1037	-9	.5625	1.1137
-10	.6250	1.1975	-10	.6250	1.2075
-12	.7500	1.4475	-12	.7500	1.4575
-14	.8750	1.5725	-14	.8750	1.5825
-16	1.0000	1.7600	-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 8e).
 OUTER RING, AMS-5643 (17-4PH).
 LINER, PTFE SHALL BE INCLUDED IN THE LINER.
- SURFACE TEXTURE:** BALL DIA. R_a 8 MAX; BORE, BALL, FACE, AND OUTER RING DIA R_a 32 MAX; ALL OTHERS R_a 125 MAX.
- HARDNESS:** BALL, 440C 55-62 Rc OR PH13-8Mo Rc 43 MIN; OUTER RING, Rc 28 MIN/ Rc 37 MAX BEFORE SWAGING.
- ① **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 0.0008 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 I. 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 -18K	0.0010 INCH	0.0040 INCH

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

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		SUPERSEDING MS14101	REV H 24 JAN 94
		AMSC - N/A	FSC 3120
DD FORM 1 MAY 88 672 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE		PAGE 2 OF 3	

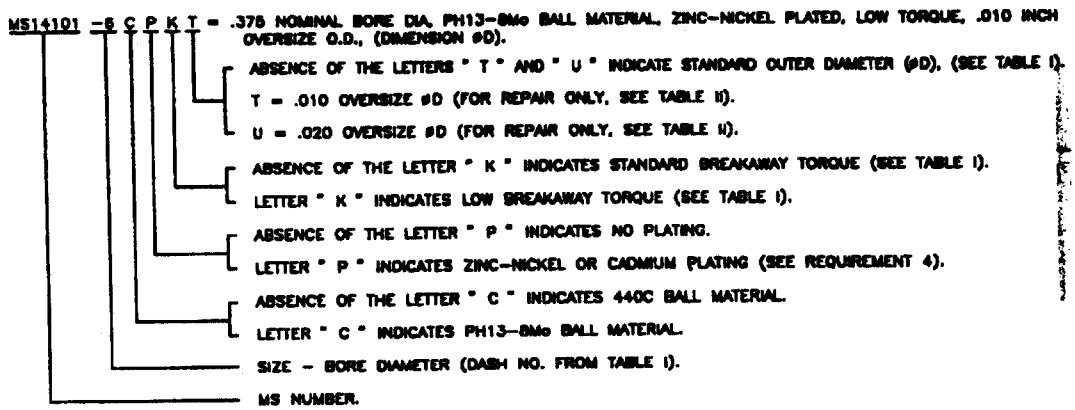
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FORM APPROVED
 OMB NO. 0704-0186

NOTES:

1. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE: DECIMALS ±.010 AND ANGLES ±0.5°.
2. BREAK SHARP EDGES AND CORNERS AND REMOVE ALL BURRS AND SLIVERS.
3. THE -3 SIZE BEARING IS EXEMPT FROM THE "RADIAL STATIC LIMIT LOAD" TEST BECAUSE THE LOAD CAPACITY OF THE BEARING IS PIN CRITICAL.
4. WHEN TESTED TO THE FLUID CONTAMINATION AND SUB-ZERO TEMPERATURE REQUIREMENTS OF THE PROCUREMENT SPECIFICATION, THE OSCILLATING LOAD SHALL BE DECREASED TO 75% OF THE SPECIFIED LOAD.
5. WHEN FLUIDS AND ELEVATED TEMPERATURES (ABOVE 200° F) ARE BOTH PRESENT IN AN APPLICATION, THEN REDUCTIONS IN OPERATING LOADS OR BEARING LIFE MAY BE REQUIRED.
6. DASH NUMBER DESIGNATES NOMINAL BORE DIA IN SIXTEENTHS OF AN INCH.
7. DIMENSION " ØD " TO BE MET AFTER PLATING. DIMENSION " H " TO BE MET BEFORE PLATING WHEN APPLICABLE.

Ⓢ B. EXAMPLE OF PART NO.



- 8a. BALL MATERIAL SHALL BE 440C AMS-5830 UNLESS " C " CALLOUT IS PRESENT IN PART NUMBER. " C " INDICATES PH13-BM6 AMS-5829 H1000
9. IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS STANDARD AND THE REFERENCES CITED HEREIN, THE TEXT OF THIS STANDARD SHALL TAKE PRECEDENCE
10. REFERENCED GOVERNMENT (OR NON-GOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS DOWNS SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.

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DISTRIBUTION STATEMENT A. APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.		REV J 5 DEC 94 REV H 24 JAN 94 PAGE 3 OF 3

DD FORM 1 MAY 88 672

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