

# J TABLE I. DIMENSIONS AND STRENGTHS

	+.0000 +.000	øD++ +.0000	0000	øM	+.000 010		+.000 002	#E +.000 008	STATIC LIMIT LOAD		OSCIL- LATING LOAD	NO-LOAD ROTATIONAL BREAKAWAY TORQUE IN-LB		WT LB		
				MIN					RADIAL LB	AXIAL LB	LB	STANDARD	'К' <sup>*</sup> ТҮРЕ	/ncc/		
-3	.1900	2050	707	700		15	.437	.563	2500	1770	4900	0.25-5.0	0-0.5	.031		
-4	.2500	.6250	3250 .327	.300	.025			.565	5500	1770	4900	0.20-5.0	0-0.5	.00.		
-5	.3125	.6875	.317	.360		14		.625	9400	1640	6050			.035		
-6	.3750	.8125	.406	.466	.035	8	.500	.712	13700	2630	B310			.060		
-7	.4375	.9375	.442	.537		.035	.035	10	.562	.837	20700	3650	11750			.080
-7A	.4375	.9062	.442	.537				10	.562	.806	19700	3650	11750	0.25-8.0	0-1.0	.000
-8	.5000	1.0000	.505	.607				9	.625	.900	21400	4970	14950	0.25-0.0	0-1.0	.100
-9	.5625	1.1250	.536	.721		10	.687	1.025	26600	5370	18100			.135		
-10	.6250	1.1875	.567	.747		12	.750	1.087	29000	6130	20250			.160		
-12	.7500	1.3750	.630	.845		13	.875	1.251	37000	7730	26200			.240		
-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	1.259		12	1.375	2.001	104000	19300	56250	0.25-12.0	0-2.0	.970		

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

## (J) DENOTES CHANGES

PREPARING ACTIVITY: NAVY - AS CUSTODIANS: ARMY-AV NAVY-AS	MILITARY SPECIFICATION SHEET	MS14103	er Rev J 5 dec 94
AIR FORCE-99 DLA-	TITLE  BEARING, PLAIN, SELF-LUBRICATING, SELF-ALIGNING, LOW SPEED, MIDE.	SUPERSEDING MS14103	REV H 24 JAN 94
REVIEW: ARMY-AR, AT, ME, DLA-IS, USAF-84 PROJECT NUMBER: 3120-0742-07	SELF-ALIGNING, LOW SPEED, WIDE, GROOVED OUTER RING, -65 TO 325 F	AMSC - N/A	FSC 3120
DISTRIBUTION STATEMENT & APPROVED FOR PL	BLIC RELEASE; DISTRIBUTION IS UNLIMITED.	PAG	E 1 0F 3

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FORM APPROVED OMB NO. 0704-0188

# J 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 NASO331 FOR installation PROCEDURE AND STAKING FORCES.

#### REQUIREMENTS:

- 1. MATERIAL: BALL 440C AMS-5630 OR PH13-8Mo AMS-5629 H1000 (SEE NOTE 8a). OUTER RING, AMS-5643 (17-4!3+). UNER PTFE SHALL BE INCLUDED IN THE UNER.
- 2. SURFACE TEXTURE: BALL DIA RO B MAX; BORE, BALL, FACE, AND OUTER RING DIA RO 32 MAX; ALL OTHERS RO 125 MAX.
- 3. HARDNESS: BALL, 440C 55-62 Rc OR PH13-8Mo Rc 43 MIN; OUTER RING Rc 28 MIN/Rc 37 MAX BEFORE SWAGING.
- J 4. SURFACE FINISH:

OUTER RING: PLATING, WHEN SPECIFIED, SHALL BE ZINC-NICKEL PLATING PER AMS-2417, TYPE 2, OR CADMIUM PLATING PER 00-P-416, TYPE IL 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 RUMOUT 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

5. NO-LOAD TORQUE; WHEN THE LETTER 1 K " IS PRESENT IN THE PART NUMBER LOWER VALUES OF NO-W TORQUE ARE SPECIFIED PER TAME L IF THE MEASURED TORQUE OF A K "TYPE BEARING IS LESS THAN U.1 INCH-POUND, THE INTERNAL RADIAL PLAY SHALL BE MEASURED AND SHALL NOT EXCEED THE FOLLOWING:

DASH NO.	MAXIMUN RADIAL PLAY	MAXIMUM AXWL 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.

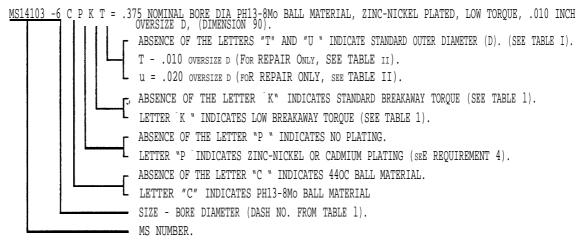
SPECIFICATION SHEET NUMBER PREPARING ACTIVITY NAVY - AS MILITARY SPECIFICATION SHEET REV J CUSTODIANS: ARMY- AV NAVY- As 5 DEC 94 M S 1 4 1 0 3 SUPERSEDING MS14103 REV 24 JAN AIR FORCE-99 DIA-H 194 BEARING PLAIN SELF-LUBRICATING SELF-ALIGNING LOW SPEED WIDE, GROOVED OUTER RING, -65° TO 325' REVIEW ARMY-AR, AT, ME, DIA-IS, USAF-84 FSC 3120 AMSC - N/A PROJECT NUMBER: 3120-0742-07 PAGE 2 OF 3

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### NOTES:

- 1. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE: DECIMALS \*.010 AND ANGLES ± 0.5.
- 2. BREAM 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 W THE PROCUREMENT SPECIFICATION, THE OSCILLATING LOAD SHALL BE DECREASED TO 75% OF THE SPECIFIED LOAD.
- 5. WHEN FLUIDS MD ELEVATED TEMPERATURES (ABOVE 200' F) ARE BOTH PRESENT IN AN APPLICATION, THEN REDUCTIONS IN OPERATING LOADS OR SEARING LIFE MAY BE REQUIRED.
- 6. DASH NUMBER DESIGNATES NOMINAL BORE DIA IN SIXTEENTHS OF AN INCH.
- 7. DIMENSION 1 D" TO BE MET AFTER PLATING. DIMENSION "H " TO BE MET BEFORE PLATING WHEN APPLICABLE.
- 8. EXAMPLE OF PART NO.



- 80. BALL MATERIAL SHALL BE 440C AMS-5630 UNLESS " C . CALLOUT IS PRESENT IN PART NUMBER. " C" INDICATES PH13-8Mo AMS-5629 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 STANDARD DODISS SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.

PREPARING ACTIVITY NAVY - AS	MILITARY SPECIFICATION SHEET	SPECIFICATION SHEET NUMBER	
CUSTODIANS: ARMY- AV NAVY- As	TITLE	M S 1 4 1 0 3	REV J 5 DEC 91
AIR FORCE- 99 DIA-	BEARING, PLAIN, SELF-LUBRICATING,	SUPERSEDING	REV H 24 JAN 94
REVIEW: ARMY-AR, AT, ME, DIA-IS, USAF-84	וויס מת הוא משתם לאו לאודואם ליאודוא מדוד או הוא מדוד או ביווים	MS14103	24 JAN 94
PROJECT NUMBER: 3120-0742-07	GROOVED COTER RING, CO. 10 323 1	AMSC - N/A FS	SC 3120
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