

U TABLE I. DIMENSIONS AND STRENGTHS

DASH NO.	ØB +.0000 -.0005	ØD** +.0000 -.0005	H** ±.005	ØM 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			
-5	.3125	.7500	.281	.419	10	.375	8750	700	5460	0.25-8.0	0-1.0	.030
-6	.3750	.8125	.312	.475	9	.406	10540	1100	6600			.040
-7	.4375	.9062	.343	.530	8	.437	13200	1400	8050			.050
-8	.5000	1.0000	.390	.600	8	.500	17900	2100	10400			.070
-9	.5625	1.0937	.437	.670	8	.562	23200	3680	13000			.090
-10	.6250	1.1875	.500	.739	8	.625	30500	4720	16450			.120
-12	.7500	1.4375	.593	.920	8	.750	46400	6750	23600	0.25-12.0	0-2.0	.210
-14	.8750	1.5625	.703	.980	8	.875	62200	9350	30250			.270
-16	1.0000	1.7500	.797	1.118	9	1.000	82200	12160	38000			.390

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

** SEE NOTE 7.

U 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: 3120-0742-08

MILITARY SPECIFICATION SHEET

TITLE

BEARING, PLAIN, SELF-LUBRICATING,
SELF-ALIGNING, LOW SPEED, NARROW,
CHAMFERED OUTER RING, -85° F TO 325° F

SPECIFICATION SHEET NUMBER

MS14104

REV J

5 DEC 94

SUPERSEDING

MS14104

REV H

31 JAN 94

AMSC - N/A

FSC 3120

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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	.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) #D
-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-5829 H1000 (SEE NOTE 8a).
OUTER RING, AMS-5643 (17-4PH).
LINER, PTFE SHALL BE INCLUDED IN THE LINER.
- SURFACE TEXTURE: BALL DIA Ro 8 MAX; BORE, BALL FACE, AND OUTER RING DIA Ro 32 MAX; ALL OTHERS Ro 125 MAX.
- HARDNESS: BALL, 440C 55-62 Rc OR PH13-8Mo Rc 43 MIN; OUTER RING Rc 28 MIN/Rc 37 MAX BEFORE SWAGING.

3/ 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 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 1 K 1 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 WILL 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.

PREPARING ACTIVITY NAVY - AS
CUSTODIANS: ARMY- AV NAVY- As
AIR FORCE- 99 DIA-
REVIEW: ARMY-AR, AT, ME, DIA-IS, USAF-84
PROJECT NUMBER: 3120-0742-05

MILITARY SPECIFICATION SHEET

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

SPECIFICATION SHEET NUMBER

M S 1 4 1 0 4

SUPERSEDING
MS14104

AMSC - N/A

REV J
5 DEC 94

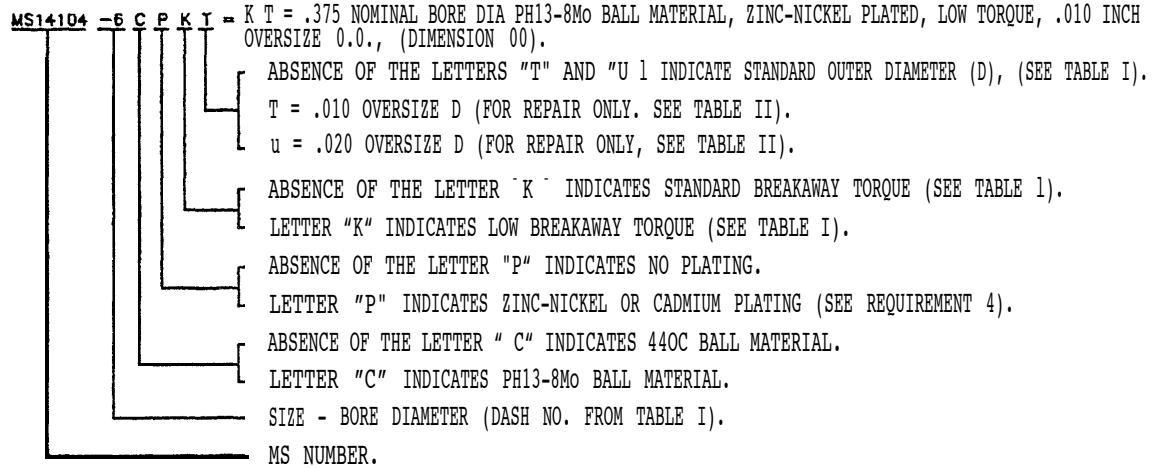
REV H
31 JAN 94

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NOTES:

1. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE; DECIMALS $\pm .010$ AND ANGLES ± 0.5 .
2. BREAK SHARP EDGES AND CORNERS AND REMOVE AU 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 1 1 D 1 TO BE MET AFTER PLATING. DIMENSION "H" TO BE MET BEFORE PLATING WHEN APPLICABLE.
8. EXAMPLE OF PART NO.



9. BALL MATERIAL SHALL BE 440C AMS-5630 UNLESS "C" CALLOUT IS PRESENT IN PART NUMBER. "c" INDICATES PH13-8Mo AMS-5629 H1000.
10. 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.
11. REFERENCED GOVERNMENT (OR NON-GOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS DODISS SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.
12. FOR EXISTING INVENTORIES, CADMIUM PLATED PARTS ARE ACCEPTABLE.

PREPARING ACTIVITY: NAVY - AS CUSTODIANS: ARMY-AV NAVY- As AIR FORCE- 99 DLA- REVIEW: ARMY-AR, AT, ME, DLA-IS, USAF-84 PROJECT NUMBER: 3120-0742-08	MILITARY SPECIFICATION SHEET TITLE BEARING, PLAIN, SELF-LUBRICATING, SELF-ALIGNING LOW SPEED, NARROW, GROOVED OUTER RING, -65° TO 325° F	SPECIFICATION SHEET NUMBER MS 1 4 1 0 4 REV J 5 DEC 94 SUPERSEDING REV H MS14104 31 JAN 9 AMSC - N/A FSC 3120
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