

REV.
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AS24463

NOTICE

FEDERAL SUPPLY CLASS
3110

THIS DOCUMENT INCLUDES CADMIUM AS A PLATING MATERIAL. THE USE OF CADMIUM HAS BEEN RESTRICTED AND/OR BANNED FOR USE IN MANY COUNTRIES DUE TO ENVIRONMENTAL AND HEALTH CONCERNS. THE USER SHOULD CONSULT WITH LOCAL OFFICIALS ON APPLICABLE HEALTH AND ENVIRONMENTAL REGULATIONS REGARDING ITS USE.

UNDER DEPARTMENT OF DEFENSE POLICIES AND PROCEDURES, ANY QUALIFICATION REQUIREMENTS AND ASSOCIATED QUALIFIED PRODUCTS LISTS ARE MANDATORY FOR DOD CONTRACTS. ANY REQUIREMENT RELATING TO QUALIFIED PRODUCTS LISTS (QPL'S) HAS NOT BEEN ADOPTED BY SAE AND IS NOT PART OF THIS TECHNICAL REPORT.

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 DODISS SPECIFIED IN THE SOLICITATION: AS39901.

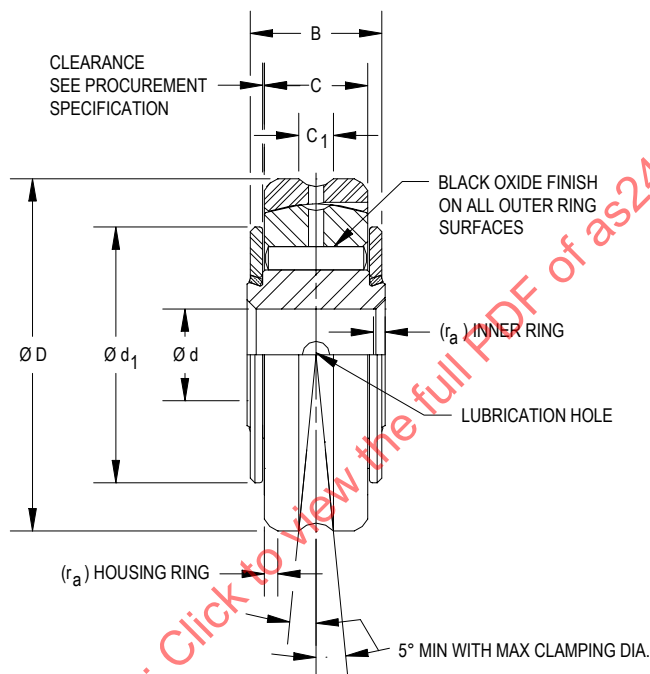


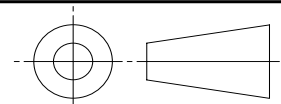
TABLE I. DIMENSIONS

DASH NO.	Ø d Bore	D HOUSING RING OUTSIDE DIA.	D OVERALL WIDTH	C OUTER RING WIDTH	d ₁ WASHER OUTSIDE DIA.	C ₁ LUBRICATION GROOVE WIDTH	r _a FILLET MAX.	TOTAL RADIAL PLAY MAX.	d ₀ CLAMPING DIAMETER		LIMIT LOAD RATING LBF	MASS (APPROX) LB	HOUSING SIZE GAGE +0.0000 -0.0001	
									MAX	MIN			LOW	HIGH
-3	.1900	.8750	.312	0.218	.625	.042	.022	.0029	.525	.438	1800	.041	.8742	.8747
-4	.2500	.9375	.375	0.281	.687	.093	.022	.0029	.688	.516	2870	.053	.9367	.9372
-5	.3125	1.0625	.437	0.344	.750	.093	.022	.0029	.734	.578	4070	.079	1.0617	1.0622

1/ THE CHAMFER ON BEARINGS MUST CLEAR THE MAXIMUM FILLET RADIUS GIVEN IN TABLE 1. THIS SPECIFICATION DOES NOT CONTROL BEARING CHAMFER CONTOURS.



THIRD ANGLE PROJECTION



CUSTODIAN: AIRFRAME CONTROL BEARINGS GROUP

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

(R) BEARING, ROLLER, NEEDLE-SINGLE ROW,
HEAVY DUTY, SELF-ALIGNING,
TYPE III, ANTIFRICTION, INCH

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SHEET 1 OF 3

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TABLE II - TOLERANCE LIMITS

$\varnothing d$ BASIC BORE		ALLOWABLE DEVIATION FROM d OF SINGLE MEAN DIA. d		ALLOWABLE DEVIATION FROM OVER- ALL WIDTH B		ALLOWABLE DEVIATION FROM WASHER OUTSIDE DIA. d_1		$\varnothing D$ BASIC OUTSIDE DIAMETER		ALLOWABLE DEVIATION FROM D OF SINGLE MEAN DIA. D		ALLOWABLE DEVIATION FROM OUTER RING WIDTH C		ALLOWABLE DEVIATION FROM LUBRI- CATION GROOVE WIDTH C_1	
OVER	INCL	HIGH	LOW	HIGH	LOW	HIGH	LOW	OVER	INCL	HIGH	LOW	HIGH	LOW	HIGH	LOW
.1250	.3125	+0	-.0007	+0	-.005	+.010	-.010	.7500	1.0625	+0	-.0005	+0	-.005	+.031	-.031

TABLE III - OIL HOLE DATA

BORE-DASH NO.		NUMBER OF HOLES		
OVER	INCL	INNER RING	OUTER RING	SPHERICAL HOUSING
2	5	NONE	2	2

REQUIREMENTS:

1. MATERIAL:

- RINGS AND ROLLERS: SAE 52100 PER ASTM A 295 OR AMS 6440.
- ENDWASHERS: AISI 1070 - 1090 STEEL PER MIL-HDBK-633, OR SAE 52100 STEEL PER ASTM A 295 OR AMS 6440.
- RETAINING RINGS: BRASS (OPTIONAL)

2. HEAT TREATMENT:

- RINGS AND ROLLERS: HARDENED AND TEMPER TO 58-66 HRC
- ENDWASHERS: HARDENED AND TEMPER TO 51-60 HRC

3. FINISH OR PLATING: ALL EXTERNAL SURFACES ZINC-NICKEL PLATED PER AMS 2417, TYPE 2 OR CADMIUM PLATED PER AMS-QQ-P-416, TYPE I, CLASS 2. WITH A THICKNESS OF .0003 - .0006 INCHES. THE OUTER RING SHALL HAVE BLACK OXIDE PER MIL-DTL-13924 ON ALL SURFACES.

4. LUBRICATION: MIL-PRF-81322 OR MIL-PRF-23827. ALL BEARINGS SHALL BE PACKED WITH MIL-PRF-81322 GREASE UNLESS OTHERWISE SPECIFIED. IF MIL-PRF-23827 GREASE IS REQUIRED, ADD THE SUFFIX "G" TO THE MS PART NUMBER.

5. MARKING: THE MARKING SHALL CONSIST OF THE PART NUMBER, THE MANUFACTURER'S CAGE CODE MARKED IN ACCORDANCE WITH MIL-STD-130 AND A LOT CONTROL NUMBER IF SPACE IS AVAILABLE.