

NOTICE

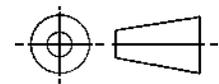
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THIRD ANGLE PROJECTION



ISSUED 2002-02

CUSTODIAN: SAE ACBG



AEROSPACE STANDARD

BEARING, ROLLER, NEEDLE-SINGLE ROW,
THIN SHELL, TYPE II, ANTI-FRICTION

AS24462
SHEET 1 OF 4

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AS24462

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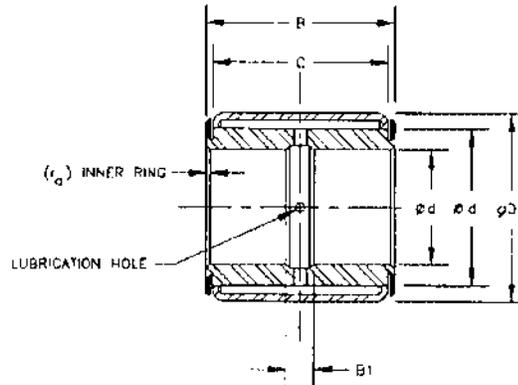


TABLE I

Dimensions in inches

Dash	ϕd Bore	ϕD Outer Ring Outside Dia 2/	B Overall Width	c Outer Ring Width	ϕd_1 Washer Outside Dia	B1 Lubrication Groove Width	r_{a1} Fillet Max	Radial Internal Clearance Max	Limit Load Rating Lbs 3/	Mass (approx) lb
-3	1900	6250	625	500	.562	None	.022	.0015	679	040
-4	2500	.6250	.562	.500	.562	None	.022	.0015	876	.025
-5	3125	6875	625	500	625	None	.022	.0015	988	050
-6	3750	7500	812	750	688	188	.022	.0015	1920	060
-7	4375	8125	875	750	750	188	.032	.0015	2110	090
-8	5000	1.0000	875	.750	.812	188	.032	.0015	2350	.120
-10	6250	1.1250	875	.750	1.062	250	.032	.0015	2690	.150
-12	7500	1.2500	1.125	1.000	1.188	250	.032	.0015	4460	.210
-14	8750	1.3750	1.125	1.000	1.312	375	.032	.0015	5000	.240
-16	1.0000	1.5000	1.125	1.000	1.438	375	.032	.0015	5510	.270
-20	1.2500	1.8750	1.375	1.250	1.612	375	.032	.0017	8180	.300

TABLE II

Dimensions in millimeters

Dash NO	ϕd Bore	ϕD Outer Ring Outside Dia	B Overall Width	c Outer Ring Width	ϕd_1 Washer Outside Dia.	B1 Lubrication Groove Width	r_{a1} Fillet Max.	Radial Internal Clearance Max	Limit Load Rating N	Mass (approx) kg
-3	48.26	15.875	15.88	12.70	14.27	None	.6	.038	3020	018
-4	63.50	15.875	14.27	12.70	14.27	None	.6	.038	3910	011
-5	79.38	17.462	15.88	12.70	15.88	None	.6	.038	4390	023
-6	95.25	19.050	20.62	19.05	17.48	4.78	.6	.038	8540	.027
-7	111.12	20.638	22.22	19.05	19.05	4.78	.6	.038	9380	041
-8	127.00	25.400	22.22	19.05	23.82	4.78	.8	.038	10500	.055
-10	158.75	28.575	22.22	19.05	26.97	6.35	.8	.038	12000	.068
-12	190.50	31.750	28.58	25.40	30.18	6.35	.8	.038	19900	.095
-14	222.23	34.925	28.58	25.40	33.32	9.52	.8	.038	22200	109
-16	254.00	38.100	28.58	25.40	36.52	9.52	.8	.038	24500	.123
-20	317.50	47.625	34.92	31.75	46.02	9.52	.8	.043	36400	.136

1/ THE CHAMFER ON BEARINGS MUST CLEAR THE MAXIMUM FILLET RADIUS GIVEN IN THE TABLE THIS SPECIFICATION DOES NOT CONTROL BEARING CHAMFER CONTOURS
 2/ DO NOT MEASURE O.D WHEN BEARING IS IN FREE STATE DIMENSIONS ABOVE ARE FOR BASIC OUTSIDE DIAMETER

AS24462

TABLE III - TOLERANCE LIMITS

DIMENSIONS IN INCHES															
Ød BASIC BORE MEAN		ALLOWABLE DEVIATION FROM d OF SINGLE MEAN Ød _{mp}		ALLOWABLE DEVIATION FROM OVER- ALL WIDTH, B		ALLOWABLE DEVIATION FROM WASHER OUTSIDE DIA, Ød ₁		ALLOWABLE DEVIATION FROM LUBRI- CATION GROOVE WIDTH, B ₁		ØD BASIC OUTER RING OUTSIDE DIA		ALLOWABLE DEVIATION FROM D OF SINGLE MEAN ØD _{mp}		ALLOWABLE DEVIATION FROM OUTER RING WIDTH, C	
OVER	INCL	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	OVER	INCL	HIGH	LOW	HIGH	LOW
.1250	1.2500	+ .0000	-.005 -.005	+ .0000	-.005	+ .010	-.010	+ .0000	-.062	.5625	1.8750	+ .0005	-.0005	+ .0000	-.010

TABLE IV

DIMENSIONS IN MILLIMETERS															
Ød BASIC BORE MEAN		ALLOWABLE DEVIATION FROM d OF SINGLE MEAN Ød _{mp}		ALLOWABLE DEVIATION FROM OVER- ALL WIDTH, B		ALLOWABLE DEVIATION FROM WASHER OUTSIDE DIA, Ød ₁		ALLOWABLE DEVIATION FROM LUBRI- CATION GROOVE WIDTH, B ₁		ØD BASIC OUTER RING OUTSIDE DIA		ALLOWABLE DEVIATION FROM D OF SINGLE MEAN ØD _{mp}		ALLOWABLE DEVIATION FROM OUTER RING WIDTH, C	
OVER	INCL	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	OVER	INCL	HIGH	LOW	HIGH	LOW
3.175	31.750	+ .0000	-.013	+ .0000	-.13	+ .25	-.25	+ .0000	-1.50	14.288	47.625	+ .013	-.013	+ .0000	-.25

TABLE V - OIL HOLE DATA

BORE-DASH NO		NUMBER OF HOLES
OVER	INCL	INNER RING
2	5	None
5	10	2
10	20	4

REQUIREMENTS:

1. MATERIAL: STEEL, MIL-S-8690, FED. STD. NO. 66, AISI/SAE STEEL NO. 50100, 51100 AND 52100.
2. FINISH:
 - a. PLATING: ZINC-NICKEL PLATE, AMS 2417, TYPE 2, OR CADMIUM PLATED IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 2, TO A MINIMUM THICKNESS OF .0003 TO .0006 INCHES.
 - b. MACHINE FINISH: ANSI/ASME B46.1, SEE PROCUREMENT SPECIFICATION.
3. LUBRICANT: MIL-G-81322 OR MIL-G-23827. ALL BEARINGS SHALL BE PREPACKED WITH GREASE CONFORMING TO MIL-G-81322 UNLESS OTHERWISE SPECIFIED. ALL BEARINGS SHALL BE FILLED 80% MINIMUM WITH GREASE. IF MIL-G-23827 IS REQUIRED, ADD THE LETTER "L" AFTER THE MS21439 DASH NUMBER. IF A RELUBRICATION GROOVE IS DESIRED, ADD THE CODE "G" AFTER THE MS21439 DASH NUMBER AND BEFORE THE LUBRICANT DESIGNATOR IF APPLICABLE. MIL-G-23827 SHALL NOT BE USED FOR OPERATIONS WHERE TEMPERATURES EXCEED 250°F.
4. MARKING: THE MARKING SHALL CONSIST OF THE MS PART NUMBER AND THE MANUFACTURER'S IDENTIFICATION IN ACCORDANCE WITH MIL-STD-130.
5. PART NUMBER: THE MS PART NUMBER SHALL CONSIST OF THE MS NUMBER PLUS THE DASH NUMBER.

