

REV.
C

AS24462™

FEDERAL SUPPLY CLASS
3110

RATIONALE

AS24462 REV. C IS A FIVE-YEAR REVIEW AND NEEDLE HARDNESS CORRECTION. CHANGES INCLUDE UPDATING THE NEEDLE HARDNESS REQUIREMENTS THAT WERE INCORRECTLY ADDED TO REV. B TO MATCH INDUSTRY STANDARDS. CORRECTED THE WASHER DIAMETER LABEL IN TABLE 1. FORMATTED HOUSING BORE LOW LIMIT TOLERANCE TO FIT A SINGLE ROW.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS39901.

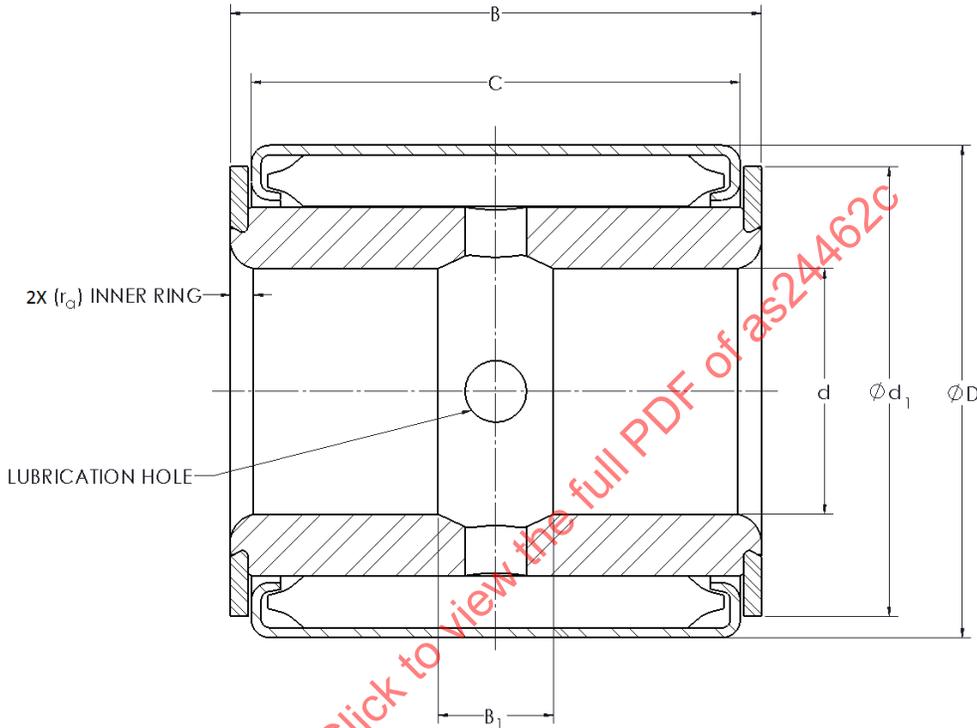
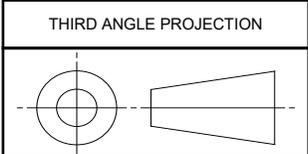


FIGURE 1 - PART CONFIGURATION

For more information on this standard, visit
<https://www.sae.org/standards/content/AS24462C/>



CUSTODIAN: ACBG

PROCUREMENT SPECIFICATION: AS39901



AEROSPACE STANDARD

BEARING, ROLLER, NEEDLE, SINGLE ROW, THIN SHELL TYPE II, ANTIFRICTION, INCH

AS24462™
SHEET 1 OF 4

REV.
C

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ISSUED 2002-02 REVISED 2024-12

TABLE 1

DASH NO.	Ød BORE	ØD OUTER RING OUTSIDE DIA 1/ 3/	B OVERALL WIDTH 1/	C OUTER RING WIDTH 1/	Ød ₁ WASHER OUTSIDE DIA (REF)	B ₁ LUBRICATION GROOVE WIDTH (REF)	r _a FILLET MAX 2/	RADIAL INTERNAL CLEARANCE MAX	LIMIT LOAD RATING POUNDS	WEIGHT (APPROX) POUNDS
-3	.1900	.6250	.625	.500	.562	NONE	.022	.0015	679	.040
-4	.2500		.562		878				.025	
-5	.3125	.6875	.625		.625				.188	.032
-6	.3750	.7500	.812	.688	1920	.060				
-7	.4375	.8125	.875	.750	.750	.250	2110	.090		
-8	.5000	1.0000			.938		2350	.120		
-10	.6250	1.1250	1.125	1.000	1.062	.375	2690	.150		
-12	.7500	1.2500			1.188		4480	.210		
-14	.8750	1.3750			1.312		5000	.240		
-16	1.0000	1.5000	1.375	1.250	1.438	.0017	5510	.270		
-20	1.2500	1.8750			1.812		8180	.300		

1/ ALL DIMENSIONS TO BE MET AFTER PLATING.

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

3/ DO NOT MEASURE OD WHEN BEARING IS IN FREE STATE. DIMENSIONS ABOVE ARE FOR BASIC OUTSIDE DIAMETER.

TABLE 2 - TOLERANCE LIMITS

Ød BASIC BORE MEAN		ALLOWABLE DEVIATION FROM d OF SINGLE MEAN Ød _{mp}		ALLOWABLE DEVIATION FROM OVERALL WIDTH B		ALLOWABLE DEVIATION FROM WASHER OUTSIDE DIA Ød ₁		ALLOWABLE DEVIATION FROM LUBRICATION GROOVE WIDTH B ₁		ØD BASIC OUTER RING OUTSIDE DIA		HOUSING BORE ALLOWABLE DEVIATION FROM D OF SINGLE MEAN DIAMETER		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	+0.0000	-0.0005	+0.000	-0.005	+0.010	-0.010	+0.000	-0.062	.5625	1.8750	+0.0005	-0.0005	+0.000	-0.010

TABLE 3 - 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:

- a. INNER RING: AMS6274 OR SAE 52100 STEEL.
- b. NEEDLES: SAE 50100, 51100, OR 52100 STEEL.
- c. CUP (OUTER RING): PLAIN CARBON STEEL.
- d. WASHERS: AE 1008 OR 1010 STEEL.

2. HEAT TREATMENT:

- a. INNER RING: HARDEN AND TEMPER TO 60 TO 64 HRC.
- b. NEEDLES: HARDEN AND TEMPER TO 60 HRC MIN.
- c. CUP: MIN Rc 58 EQUIVALENT (RACEWAY).

3. PLATING:

NO SUFFIX CODE: ALL EXPOSED SURFACES EXCEPT BORE SHALL BE PLATED WITH CADMIUM PER AMS-QQ-P-416, TYPE I, CLASS 2, .0003 TO .0006 THICK.

SUFFIX CODE "E": ALL EXPOSED SURFACES EXCEPT BORE SHALL BE PLATED WITH ZINC NICKEL PER AMS2417, TYPE 2, GRADE B, .0003 TO .0006 THICK.

4. LUBRICANT:

NO SUFFIX CODE: BEARINGS TO BE PREPACKED 80 TO 100% FULL WITH GREASE CONFORMING TO MIL-PRF-81322. BEARING OPERATING TEMPERATURE RANGE -65 TO 350 °F.

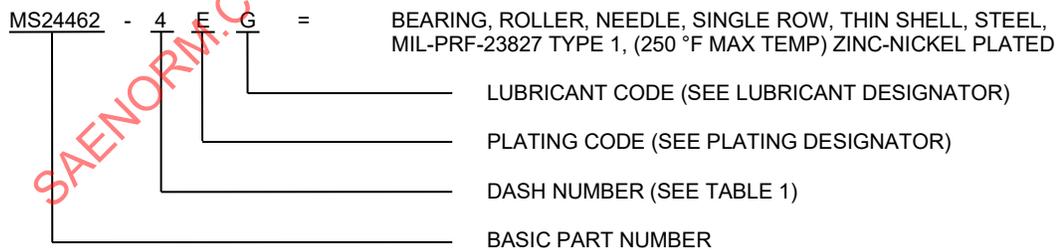
SUFFIX CODE "G": BEARINGS TO BE PREPACKED 80 TO 100% FULL WITH GREASE CONFORMING TO MIL-PRF-23827, TYPE 1. BEARING OPERATING TEMPERATURE RANGE -65 TO 250 °F.

5. SURFACE TEXTURE, IN ACCORDANCE WITH ASME B46.1:

INNER RACEWAY: 16 MICROINCHES
 CUP RACEWAY: 40 MICROINCHES
 WASHER END FACES: 63 MICROINCHES
 NEEDLE OD: 8 MICROINCHES

6. PART NUMBER:

THE PART NUMBER SHALL BE SEQUENCED LEFT TO RIGHT WITHOUT SPACES WITH DESIGNATIONS IN THE FOLLOWING SEQUENCE.



7. PACKAGING:

BEARINGS SHALL BE INDIVIDUALLY PACKAGED TO THE REQUIREMENTS OF MIL-DTL-197. PACKAGE MARKED WITH MANUFACTURER'S NAME OR TRADEMARK, DATE OF LUBRICATION BY MONTH AND YEAR, AND LOT CONTROL NUMBER.

	AEROSPACE STANDARD	AS24462™ SHEET 3 OF 4	REV. C
	BEARING, ROLLER, NEEDLE, SINGLE ROW, THIN SHELL TYPE II, ANTI-FRICTION, INCH		