

REV.  
B

AS5928™

FEDERAL SUPPLY CLASS  
3110

RATIONALE

AS5928B IS BEING REVIEWED AS A PART OF SAE'S FIVE-YEAR REVIEW POLICY. UPDATED SURFACE FINISH REQUIREMENTS. UPDATED LUBRICATION STATEMENT.

NOTICE

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

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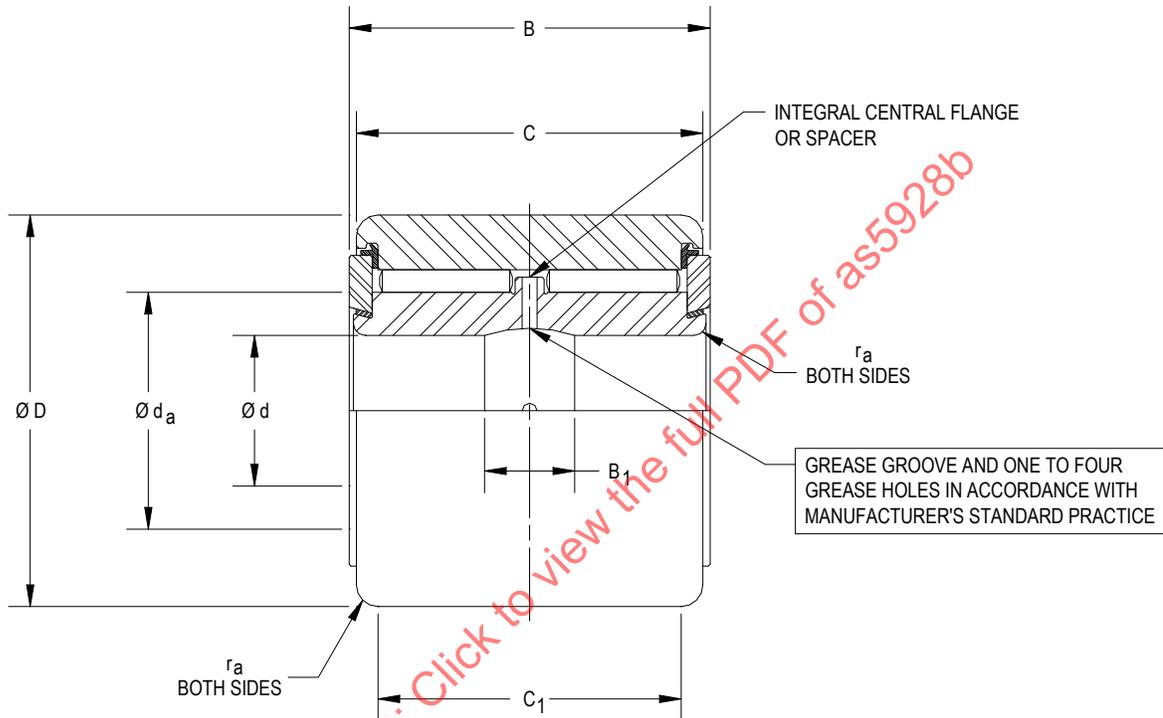
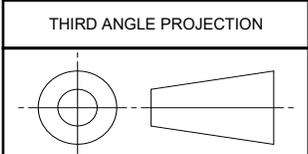


FIGURE 1

SAENORM.COM : Click to view the full PDF of as5928b

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<https://www.sae.org/standards/content/AS5928B/>



CUSTODIAN: ACBG

PROCUREMENT SPECIFICATION: AS39901



AEROSPACE STANDARD

BEARING, ROLLER, NEEDLE, DOUBLE ROW, HEAVY DUTY,  
TRACK ROLLER, SEALED, TYPE VI, ANTI-FRICTION,  
CORROSION RESISTANT NITROGEN (CREN) STEEL, INCH

AS5928™  
SHEET 1 OF 3

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ISSUED 2005-09 REVISED 2023-11

**TABLE 1**

DASH NO.	∅d BORE	∅D OUTER RING OD	C OUTER RING WIDTH	B OVERALL WIDTH	∅d <sub>c</sub> CLAMPING DIAMETER MINIMUM	R <sub>s</sub> RADIUS MINIMUM	B <sub>1</sub> LUBRICATION GROOVE WIDTH	RADIAL INTERNAL CLEARANCE MAXIMUM	CAPACITY AS A TRACK ROLLER POUNDS	TRACK CAPACITY 40 HRC POUNDS	LIMIT LOAD RATING POUNDS	WEIGHT (APPROX) POUNDS
-104	.2500	.8750	.710	.750	.576	.022	.188	.0018	2310	1480	3100	.12
-106	.3750	1.1250	.940	1.000	.672	.022	.188	.0018	5640	2600	7800	.24
-108	.5000	1.3750	1.190	1.250	.891	.032	.250	.0018	9840	4250	13500	.44
-110	.6250	1.6250	1.440	1.500	1.109	.032	.375	.0018	15750	5650	21500	.73
-112	.7500	1.8750	1.690	1.750	1.281	.032	.375	.0018	22470	7950	30000	1.13
-114	.8750	2.1250	1.940	2.000	1.469	.032	.375	.0018	28900	10650	40000	1.63
-116	1.0000	2.3750	2.190	2.250	1.578	.032	.375	.0018	33600	13200	45000	2.31
-120	1.2500	2.7500	2.440	2.500	1.844	.032	.375	.0018	44700	17300	61000	3.26
-124	1.5000	3.0000	2.690	2.750	1.984	.032	.375	.0018	53600	21200	72000	4.33
-128	1.7500	3.4375	2.940	3.000	2.281	.032	.375	.0018	69000	27000	92000	6.09
-132	2.0000	3.8750	2.940	3.000	2.562	.032	.375	.0018	76600	30400	102000	7.35

**TABLE 2**

∅d BASIC BORE		ALLOWABLE DEVIATION FROM ∅d OF SINGLE MEAN DIAMETER D <sub>mp</sub>		ALLOWABLE DEVIATION FROM OVERALL WIDTH B		ALLOWABLE DEVIATION FROM LUBRICATION GROOVE WIDTH B <sub>1</sub>		∅D BASIC OUTSIDE DIAMETER		ALLOWABLE DEVIATION FROM ∅D OF SINGLE MEAN DIAMETER D <sub>MP</sub>		ALLOWABLE DEVIATION FROM OUTER RING WIDTH C	
OVER	INCL	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
.2500	2.0000	0	-.0007	0	-.010	0	-.062	8750	3.8750	+ .001	-.001	0	-.005

**REQUIREMENTS:**

**1. MATERIAL:**

- a. INNER RING, OUTER RING, AND NEEDLES: CORROSION RESISTANT NITROGEN (CREN) STEEL PER AMS5898, AMS5925, OR 422 STEEL PER AMS5655.
- b. ENDWASHERS AND SPACER: 420 STEEL PER AMS5506 OR AMS5621, 422 STEEL PER AMS5655, OR CORROSION RESISTANT NITROGEN (CREN) STEEL PER AMS5898 OR AMS5925.
- c. SEALS: POLYAMIDE (NYLON) PER L-P-410, TYPE 6/6 WEAR RESISTANT GRADE OR ACETAL COPOLYMER WITH LUBRICANT FILLERS PER ASTM D6778.
- d. RETAINING RINGS (OPTIONAL): BRASS.

**2. HEAT TREATMENT:**

- a. INNER AND OUTER RINGS: STEEL PER AMS5898 AND AMS5925 THROUGH HARDEN TO 58 HRC MINIMUM. STEEL PER AMS5655 CASE HARDEN TO 58 HRC MINIMUM AT A CASE DEPTH OF .030.
- b. NEEDLES: 58 HRC MINIMUM.
- c. ENDWASHERS AND SPACER: 50-56 HRC.

**3. FINISH:**

INNER AND OUTER RINGS, NEEDLES, AND ENDWASHERS: PASSIVATE PER AMS2700, METHOD 1, TYPE 2, OR METHOD 2. TEST FOR PASSIVATION PER AMS2700 METHOD 101 OR METHOD 102.

**4. SURFACE TEXTURE IN ACCORDANCE WITH ASME B46.1:**

- a. NEEDLE OD – 8 MICROINCHES Ra MAXIMUM
- b. INNER AND OUTER RACEWAYS – 16 MICROINCHES Ra MAXIMUM
- c. BORE AND OD – 40 MICROINCHES Ra MAXIMUM
- d. ENDWASHER FACES – 63 MICROINCHES Ra MAXIMUM

	<b>AEROSPACE STANDARD</b>		<b>AS5928™</b> SHEET 2 OF 3	<b>REV. B</b>
	BEARING, ROLLER, NEEDLE, DOUBLE ROW, HEAVY DUTY, TRACK ROLLER, SEALED, TYPE VI, ANTI-FRICTION, CORROSION RESISTANT NITROGEN (CREN) STEEL, INCH			