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REV.
C

AS20218™

RATIONALE

AS20218C IS A FIVE-YEAR REVIEW. CHANGES MADE WERE EDITORIAL. ADD NOTICE FOR PROCURING OF PRODUCT, SPECIFIED MATERIALS FOR BALL RETAINER AND SEAL RETAINER. CADMIUM PLATE WARNING NOTE UPDATED.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS6038.

FEDERAL SUPPLY CLASS
3110

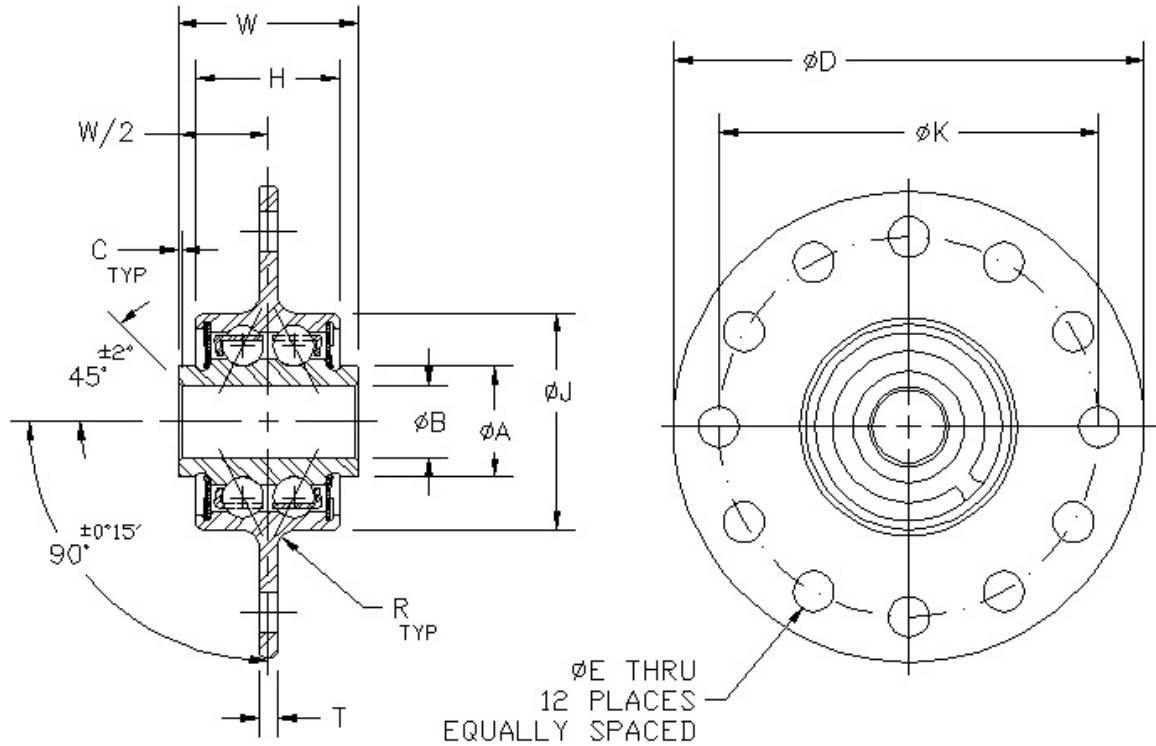
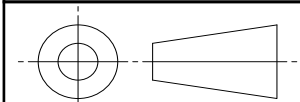


FIGURE 1

For more information on this standard, visit
<https://www.sae.org/standards/content/AS20218C/>

THIRD ANGLE PROJECTION



CUSTODIAN: ACBG

PROCUREMENT SPECIFICATION: AS6038



AEROSPACE STANDARD

BEARING, BALL, ANTI-FRICTION, AIRFRAME

AS20218™
SHEET 1 OF 3

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TABLE 1 - DIMENSIONS AND TOLERANCES

MS DASH NO.	BORE SIZE NOM.	A MIN. 3/ 4/	B +.0000 -.0005 1/	C +.010 -.005 2/ 3/	D ±.010 4/	E +.000 -.005 4/	H ±.005 4/	J ±.010 3/ 4/	K ± .005	R +.010 -.000 3/	T ± .005 4/	W +.000 -.005 4/
-1	.2500	.382	.2500	.015	1.625	.145	.500	.750	1.312	.062	.062	.625
-2	.3125	.441	.3125	.015	1.687	.145	.562	.875	1.375	.062	.062	.687

1/ OUT-OF-ROUND TOLERANCES: BORE: +.0002, -.0007.

2/ A RADIUS GIVING APPROXIMATELY THE SAME FILLET CLEARANCE WILL BE ACCEPTABLE.

3/ DIMENSIONS ARE TYPICAL.

4/ DIMENSIONS ARE MET AFTER PLATING.

5/ REMOVE ALL BURRS AND SHARP EDGES.

TABLE 2 - INTERNAL SPECIFICATIONS AND LOAD REQUIREMENTS

MS DASH NO.	RADIAL CLEARANCE MAX	AXIAL CLEARANCE MAX	WOBBLE MAX	RADIAL STATIC CAPACITY LB MIN	AXIAL STATIC CAPACITY LB MIN	RADIAL ENDURANCE LOAD LB MIN	LIMIT MOMENT RATING IN-LB MIN	WEIGHT LB MAX
-1	.0010	.0020	.0050	2770	700	500	414	.06
-2	.0010	.0020	.0050	3280	900	680	551	.08

REQUIREMENTS

1. MATERIALS:

INNER RING: 52100 STEEL PER AMS6440

OUTER RING: 52100 STEEL PER AMS6440 OR 6150 STEEL PER AMS6448

BALLS: 52100 STEEL PER AMS6440

SEALS: NITRILE BUTADIENE OR POLYTETRAFLUOROETHYLENE (PTFE) PER AMS3652

SEAL RETAINER: 301 CRES PER AMS5519
302 CRES PER AMS5515, AMS5516 OR AMS5906
304 PER AMS5513 OR AMS5913

BALL RETAINER: AISI 1008 OR 1010 STEEL PER J403
301 CRES PER AMS5519
302 CRES PER AMS5515 OR AMS5516
304 CRES PER AMS5513
305 CRES PER AMS5514
410 CRES PER AMS5504
430 CRES PER ASTM A240 OR AMS5503

2. HEAT TREATMENT:

INNER RING: 58-64 HRC

OUTER RING: RACEWAYS 58-62 HRC AND RIVETING FLANGE HRC 25 MAXIMUM.

BALLS: 60-67 HRC

3. STABILITY:

RINGS AND BALLS SHALL BE STABILIZED FOR OPERATION AT -67 °F TO +250 °F.

4. SURFACE ROUGHNESS:

32 MICROINCHES Ra ALL OVER, RACEWAYS 4 MICROINCHES Ra, IN ACCORDANCE WITH ASME B46.1.

	AEROSPACE STANDARD		AS20218™ SHEET 2 OF 3	REV. C
	BEARING, BALL, ANTI-FRICTION, AIRFRAME			

