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REV.
D

AS27645™

FEDERAL SUPPLY CLASS
3110

RATIONALE

AS27645D IS A FIVE YEAR REVIEW. THE CHANGES MADE WERE EDITORIAL TO REFLECT SIMILAR DOCUMENTS WITHIN THE WORKING GROUP. 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 AS7949.

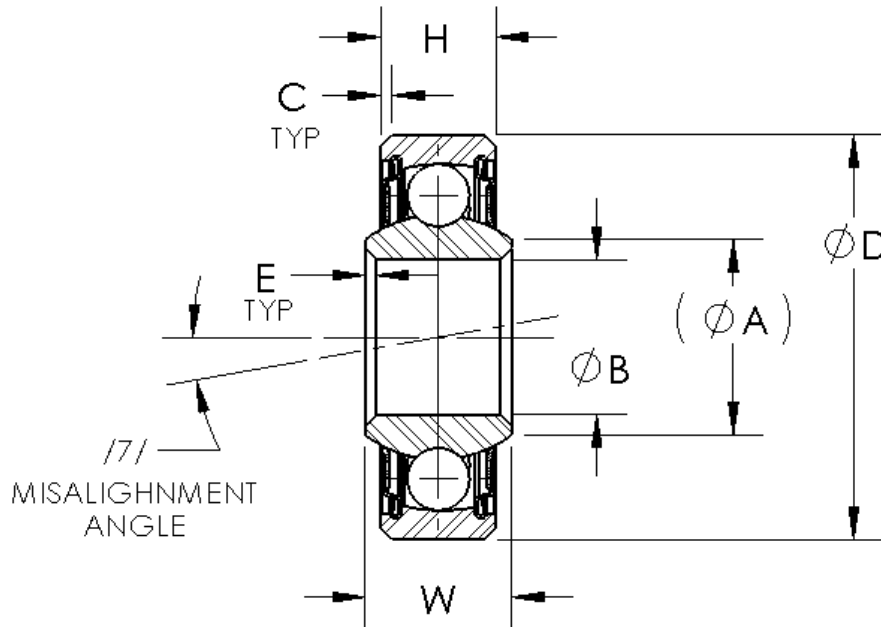
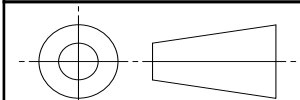


FIGURE 1 - PART CONFIGURATION

For more information on this standard, visit
<https://www.sae.org/standards/content/AS27645D/>

THIRD ANGLE PROJECTION



CUSTODIAN: ACBG

PROCUREMENT SPECIFICATION: AS7949



AEROSPACE STANDARD

BEARING, BALL, AIRFRAME,
ANTI-FRICTION, SELF-ALIGNING,
LIGHT AND HEAVY DUTY

AS27645™
SHEET 1 OF 4

REV.
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TABLE 1 - DIMENSIONS AND LOADS

	ØB	ØD	W	H	(ØA)	E	C
	2/ BORE	1/ 2/ OUTSIDE DIAMETER	1/ WIDTH INNER RING	1/ WIDTH OUTER RING	SHOULDER DIAMETER INNER RING (APPROX)	4/ INNER RING CORNER CHAMFER +.015 -.000	3/ OUTER RING CORNER CHAMFER +.015 -.000
DASH NO.	+.0000 -.0005	+.0000 -.0005	+.000 -.005	+.000 -.005			
-3A	.1900	.6250	.245	.203	.253	.005	.016
-4A	.2500	.7500	.281	.219	.321	.005	.016
-5A	.3125	.8125	.297	.234	.381	.015	.016
-6A	.3750	.8750	.313	.250	.453	.016	.016
-3	.1900	.7774	.297	.270	.290	.005	.022
-4	.2500	.9014	.484	.335	.390	.005	.032
-5	.3125	1.2500	.558	.375	.561	.015	.032
-6	.3750	1.4375	.620	.469	.607	.015	.032
-8	.5000	1.6875	.620	.500	.791	.015	.044
-10	.6250	1.9375	.813	.625	.916	.015	.044

TABLE 1 - DIMENSIONS AND LOADS (CONTINUED)

DASH NO.	RADIAL LIMIT LOAD RATING POUNDS	THRUST LIMIT LOAD RATING POUNDS	5/ 6/ RADIAL LOAD RATING FOR AVERAGE LIFE OF 10000 COMPLETE 90 CYCLES POUNDS		AXIAL INTERNAL CLEARANCE MAX	8/ MAXIMUM STARTING TORQUE (IN-OZ)	MINIMUM TORQUE TO DISLODGE SEAL (IN-LB)	WEIGHT POUNDS (APPROX)
			CASE I	CASE II				
-3A	550	100	550	480	.023	1	4	.01
-4A	900	200	900	770	.025	1	6	.01
-5A	1000	200	950	815	.028	2	10	.02
-6A	1120	200	1120	990	.030	3	8	.02
-3	900	200	900	770	.023	1	6	.03
-4	1410	300	1230	1230	.025	1	5	.04
-5	2190	300	2190	1890	.028	2	16	.10
-6	2980	400	2980	2580	.030	3	18	.15
-8	3670	500	3670	3290	.032	4	20	.23
-10	5320	600	4980	4360	.034	5	25	.37

- 1/ DIMENSIONS TO BE MET AFTER PLATING.
- 2/ OUT-OF-ROUND TOLERANCES: BORE +.0002, -.0007; OUTER DIA: +.0005, -.0010.
- 3/ 45° CHAMFER OR RADIUS GIVING APPROXIMATELY THE SAME GRIP FOR STAKING THE BEARING IN THE HOUSING WILL BE ACCEPTABLE.
- 4/ 45° CHAMFER OR RADIUS GIVING APPROXIMATELY THE SAME FILLET CLEARANCE WILL BE ACCEPTABLE.
- 5/ CASE I = LOAD FIXED WITH RESPECT TO OUTER RING, CASE II = LOAD FIXED WITH RESPECT TO INNER RING.
- 6/ THESE RATINGS ARE FOR OPERATION UP TO 250 °F. FOR OPERATION UP TO 350 °F, THE RATINGS SHALL BE REDUCED BY 20%.
- 7/ THESE BEARINGS ARE INTERNAL SELF-ALIGNING FOR 10° MINIMUM IN EITHER DIRECTION EXCEPT MS-4A, -5A, AND -6A WHICH ARE SELF-ALIGNING FOR 8° IN EITHER DIRECTION. MISALIGNMENT ANGLE IS NOT TO EXCEED MINIMUM REQUIREMENT IN DESIGN OR APPLICATION.
- 8/ SPECIFIED LIMITS ARE FOR BEARINGS LUBRICATED WITH MIL-PRF-81322 GREASE. FOR BEARINGS LUBRICATED WITH MIL-PRF-23827 TYPE 1 GREASE, THE TORQUE LIMIT SHALL BE THE SPECIFIED VALUE IN TABLE 1 MULTIPLIED BY 1.2.

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