

REV.
B

AS27643

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODISS SPECIFIED IN THE SOLICITATION: SAE AS7949.

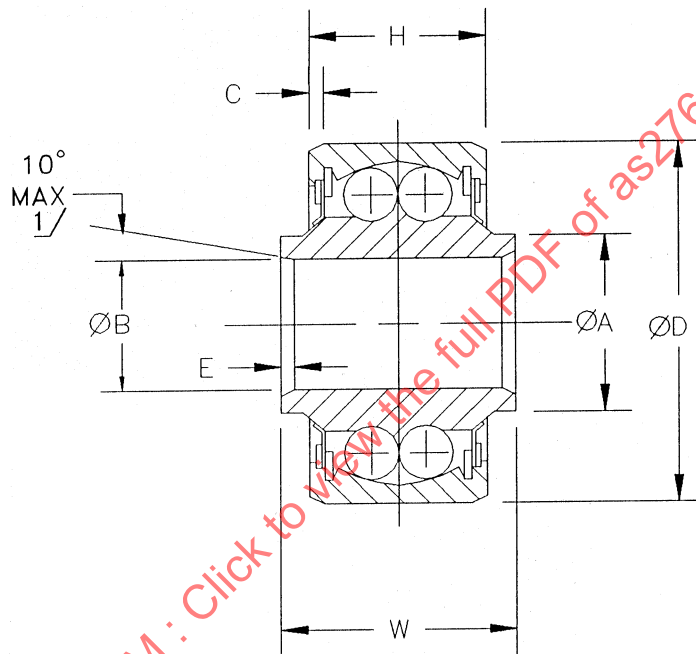


FIGURE 1

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

ISSUED 1998-04 REVISED 2002-06

PREPARED BY AIRFRAME CONTROL BEARINGS GROUP (ACBG)

SAE The Engineering Society
For Advancing Mobility
Land Sea Air and Space®
INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE STANDARD

(R)

BEARING, BALL, AIRFRAME,
ANTI-FRICTION, SELF-ALIGNING,
DOUBLE ROW, HEAVY DUTY

AS27643
SHEET 1 OF 3

**REV.
B**

TABLE 1 - DIMENSIONS AND LOADS

MS DASH NO.	BEARING PART NO. REF. ONLY	øB BORE + .0000 - .0005	øD OUTSIDE DIAMETER	W WIDTH INNER RING + .000 - .005	H WIDTH OUTER RING + .000 - .005	øA SHOULDER DIAMETER INNER RING (APPROX)	C OUTER RING CORNER CHAMFER	E INNER RING CORNER CHAMFER	LIMIT LOAD RATING		AXIAL INTERNAL CLEARANCE (MAX)	RADIAL LOAD RATING (LB) FOR AVERAGE LIFE OF 10,000 COMPLETE 90° CYCLES		WEIGHT POUNDS (APPROX)
									RADIAL (LB)	THRUST (LB)		6/ CASE I	6/ CASE II	
-3	DSP3	.1900	.7774	.500	.392	.304	.022	.005	1420	200	.0055	1420	1220	.04
-4	DSP4	.2500	.9014	.687	.464	.430			1780	300		1780	1600	.06
-5	DSP5	.3125	1.2500	.812	.656	.515	.032		3740	600	.006	3740	3300	.16
-6	DSP6	.3750	1.4375	.937	.750	.564		.015	5100	800		4980	4370	.24
-8	DSP8	.5000	1.6875	1.000	.812	.775	.044		7120	1000	.007	6340	5570	.36
-10	DSP10	.6250	1.9375	1.125	.937	.869			9000	1300		7780	6860	.53

TABLE 1 - (CONTINUED)

MS DASH NO.	6/ MAXIMUM STARTING TORQUE (IN-OZ)	MINIMUM TORQUE TO DISLODGE SEAL (IN/LB)
-3	1	8
-4	1	12
-5	3	28
-6	4	45
-8	5	60
-10	6	78

1/ THESE BEARINGS ARE INTERNAL SELF-ALIGNING FOR 10° IN EITHER DIRECTION.

2/ DIMENSIONS TO BE MET AFTER PLATING.

3/ OUT-OF-ROUND TOLERANCES: BORE: +.0002, -.0007; OUTER DIA: +.0005, -.0010.

4/ 45° CHAMFER OR A RADIUS GIVING APPROXIMATELY THE SAME FILLET CLEARANCE WILL BE ACCEPTABLE.

5/ 45° CHAMFER OR A RADIUS GIVING APPROXIMATELY THE SAME GRIP FOR STAKING THE BEARING IN THE HOUSING WILL BE ACCEPTABLE.

6/ CASE I - LOAD FIXED WITH RESPECT TO OUTER RING.

CASE II - LOAD FIXED WITH RESPECT TO INNER RING.

7/ THESE RATINGS ARE FOR OPERATION UP TO 350 °F. FOR OPERATION UP TO 250 °F. THE RATINGS SHALL BE REDUCED BY 20%.

8/ SPECIFIED LIMITS ARE FOR BEARINGS LUBRICATED WITH MIL-PRF-81322 GREASE. FOR BEARINGS LUBRICATED WITH MIL-PRF-23827 GREASE, THE TORQUE LIMIT SHALL BE THE SPECIFIED VALUE IN THE TABLE MULTIPLIED BY 1.2.