

SAE-AS27645

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Adopting Activity

Navy - AS
(Project 3110-1089)

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AEROSPACE STANDARD

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

AS27645
SHEET 1 OF 3

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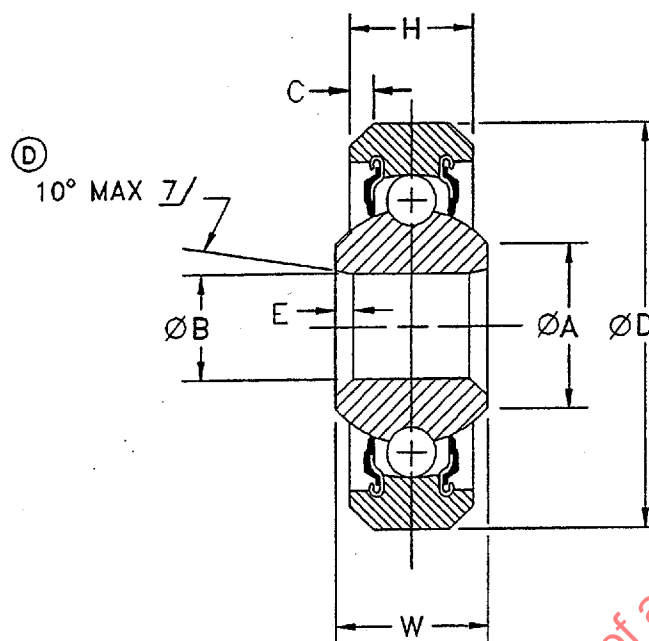


TABLE I. DIMENSIONS AND LOADS

MS DASH NO.	#B	#D	W	H	#A	E		C		RADIAL LIMIT LOAD RATING LBS	THRUST LIMIT LOAD RATING LBS	#/ 5/ RADIAL LOAD RATING (LBS.) FOR AVERAGE LIFE OF 10,000 COMPLETE 90° CYCLES		AXIAL INTERNAL CLEARANCE (MAX)	WEIGHT POUNDS (APPROX)	MAXIMUM STARTING TORQUE (INCH-OZ)	MINIMUM TORQUE TO DISLODGE SEAL (IN-LB)
	2/ BORE	OUTSIDE DIAMETER	WIDTH INNER RING	WIDTH OUTER RING	SHOULDER DIAMETER INNER RING (APPROX)	4/ INNER RING CORNER CHAMFER	3/ OUTER RING CORNER CHAMFER										
			+0.000 -0.005	+0.000 -0.005													
	1/ Z/	1/ Z/	1/ Z/	1/ Z/				CASE I	CASE II								
	+0.0000 -0.0005	+0.0000 -0.0005					+0.015, -0.000										
-3A	.1900	.6250	.245	.203	.253	.005	.016	550	100	550	480	.023	.01	1	4		
-4A	.2500	.7500	.281	.219	.321			900	900	770	.025	1		6			
-5A	.3125	.8125	.297	.234	.381			1000	950	815	.028	2		10			
-6A	.3750	.8750	.313	.250	.453	.016	.022	1120	200	1120	990	.030	.02	3	8		
-3	.1900	.7774	.297	.270	.290	900		900		770	.023	.03		1	6		
-4	.2500	.9014	.484	.335	.390	1410		1230		1230	.025	.04		1	5		
-5	.3125	1.2500	.558	.375	.561	2190		2190		1890	.028	.10	2	16			
-6	.3750	1.4375	.620	.469	.607	.015	.032	2980	400	2980	2580	.030	.15	3	18		
-8	.5000	1.6875	.620	.500	.791			3670	500	3670	3290	.032	.23	4	20		
-10	.6250	1.9375	.813	.625	.916			5320	600	4980	4360	.034	.37	6	25		

1/ DIMENSIONS TO BE MET AFTER PLATING.

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

3/ 45° CHAMFER OR A RADIUS GIVING APPROXIMATELY THE SAME GRIP FOR STAKING THE BEARING IN THE HOUSING WILL BE ACCEPTABLE.

4/ 45° CHAMFER OR A 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° IN EITHER DIRECTION EXCEPT MS-4A, -5A, AND -6A WHICH ARE SELF-ALIGNING FOR 8° IN EITHER DIRECTION.

(D) DENOTES CHANGES