

SAE-AS27648

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PREPARED BY AIRFRAME CONTROL BEARINGS GROUP (ACBG)



AEROSPACE STANDARD

BEARING, BALL, AIRFRAME,
ANTI-FRICTION, EXTERNAL SELF ALIGNING,
EXTRA LIGHT DUTY

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SHEET 1 OF 3

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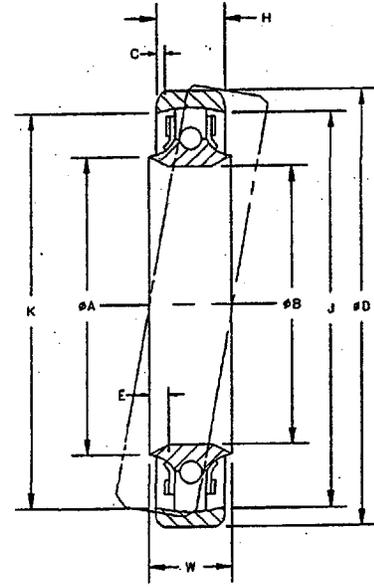


TABLE I. DIMENSIONS AND LOADS

MS DASH NO.	aB		aD		W		H		aA		E AND C		K	J	L* MAX	RADIAL LOAD LIMIT	THRUST LOAD	RADIALLY LOAD RATING (LBS.)		WEIGHT (APPROX) POUNDS	MAXIMUM STARTING TORQUE (INCH-OZ)
	1/	2/	1/	2/	1/	1/	SHOULDER	3/	4/	TO	BRG	PERMISSIBLE	RATING	RATING	FOR AVERAGE LIFE OF 10,000 COMPLETE 90° CYCLES			CASE I	CASE II		
	BORE	DIAMETER	INNER RING	OUTER RING	INNER RING	OUTER RING	INNER RING	INNER & OUTER RING CORNER CHAMFER	CORNER (REF)	SPHERE O.D.	MISALIGNMENT EITHER DIRECTION	RATING									
	+0.000	+0.000	+0.000	+0.000																	
	-0.010	-0.010	-0.005	-0.005																	
-16	1.0000	1.9375					1.141						1.709	1.740	7° 25'	8085	1600	4260	3960	.18	5
-21	1.3150	2.2500					1.477						2.028	2.052	6° 30'	9840	2000	4590	4290	.20	7
-23	1.4380	2.3750					1.575						2.155	2.178	6°	10500	2200	4650	4360	.22	8
-25	1.5630	2.5000	.437	.375			1.693	.024					2.282	2.302	5° 45'	11300	2300	4680	4420	.25	9
-29	1.8130	2.7500					1.931						2.535	2.552	5°	12700	2600	4760	4530	.27	12
-33	2.0630	3.0000					2.247						2.787	2.802	5°	14400	2900	4820	4630	.30	14
-37	2.3130	3.2500					2.468						3.039	3.052	4° 30'	15600	3200	4880	4690	.33	17
-47	2.9380	4.1250					3.093						3.846	3.865	4° 30'	24700	5000	6660	6390	.64	24
-48	3.0000	4.2500	.531	.469			3.222	.039					3.972	3.990	4°	27500	5500	8150	7840	.69	25
-49	3.0630	4.2500					3.222						3.972	3.990	4°	27500	5500	8150	7840	.69	26

1/ ALL DIMENSIONS TO BE MET AFTER PLATING.
 2/ OUT-OF-ROUNDNESS: BORE: +.0003, -0.0013 OUTER DIAMETER: +.0010, -.0020.
 3/ A RADIUS GIVING APPROXIMATELY THE SAME GRIP FOR STAKING THE BEARING IN THE HOUSING IS ACCEPTABLE IN LIEU OF THE 45° FLAT SURFACE CHAMFER FOR DIMENSION C.
 4/ A RADIUS GIVING APPROXIMATELY THE SAME FILLET CLEARANCE IS ACCEPTABLE IN LIEU OF THE 45° FLAT SURFACE CHAMFER FOR DIMENSION E.
 5/ CASE I = LOAD IS FIXED WITH RESPECT TO THE OUTER RING.
 CASE II = LOAD IS FIXED WITH RESPECT TO THE INNER RING.
 6/ THESE RATINGS ARE FOR OPERATION UP TO 250°F. WHEN SUBJECT TO OPERATION UP TO 350°F, THE RATINGS SHALL BE REDUCED BY 20%.
 7/ BORE TOLERANCE FOR -16 IS +.0000 - .0005.

(E) DENOTES CHANGES