

SAE-AS27648

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Custodians:

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Navy - AS

(Project 3110-1092)

Review Activities:

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Land Sea Air and Space
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AEROSPACE STANDARD

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

AS27648
SHEET 1 OF 3

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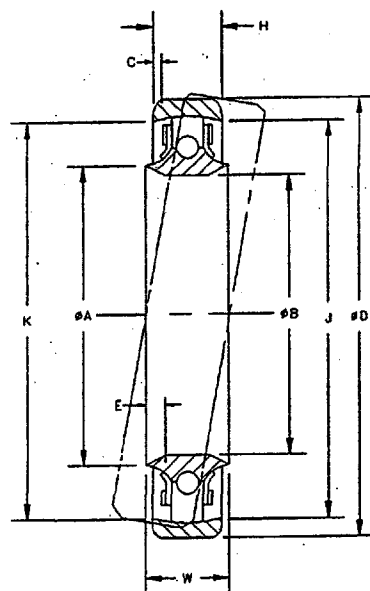


TABLE I. DIMENSIONS AND LOADS

MS DASH NO.	eB		eD		W		H		eA		E AND C		K	J	L* MAX		RADIAL LIMIT LOAD RATING LBS	THRUST LIMIT LOAD RATING LBS	S/ RADIAL LOAD RATING (LBS.) FOR AVERAGE LIFE OF 10,000 COMPLETE 90° CYCLES		WEIGHT POUNDS (APPROX)	MAXIMUM STARTING TORQUE (INCH-OZ)
	1/ 2/ BORE	1/ 2/ OUTSIDE DIAMETER	1/ WIDTH INNER RING	1/ WIDTH OUTER RING	SHOULDER DIAMETER INNER RING APPROX.	3/ INNER & OUTER RING CORNER CHAMFER +.015 -.000	TO SHARP CORNER (REF)	BRG SPHERE O.D.	PERMISSIBLE MISALIGNMENT EITHER DIRECTION	CASE I	CASE II											
-16	1.0000	1.9375	.437	.375	1.141	.024	1.709	1.740	7° 25'	8085	1600	4260	3960	.18	5							
-21	1.3130	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			1.693		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	.531	.469	3.093	.039	3.846	3.865	4° 30'	24700	5000	6660	6390	.64	24							
-48	3.0000	4.2500			3.222		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.

6/ CASE II = LOAD IS FIXED WITH RESPECT TO THE INNER RING.

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

8/ BORE TOLERANCE FOR -16 IS +.0000 - .0005.

(E) DENOTES CHANGES