FEDERAL SUPPLY CLASS
3110

RATIONALE

CORRECTION. FIGURE 1 SPECIFIED A .020/.005 X 45 DEGREE BORE CHAMFER AS A CONSTANT BUT TABLE 1 INDICATES THAT CHAMFER AS "N" AND VARIES DEPENDING ON THE DASH NUMBER.

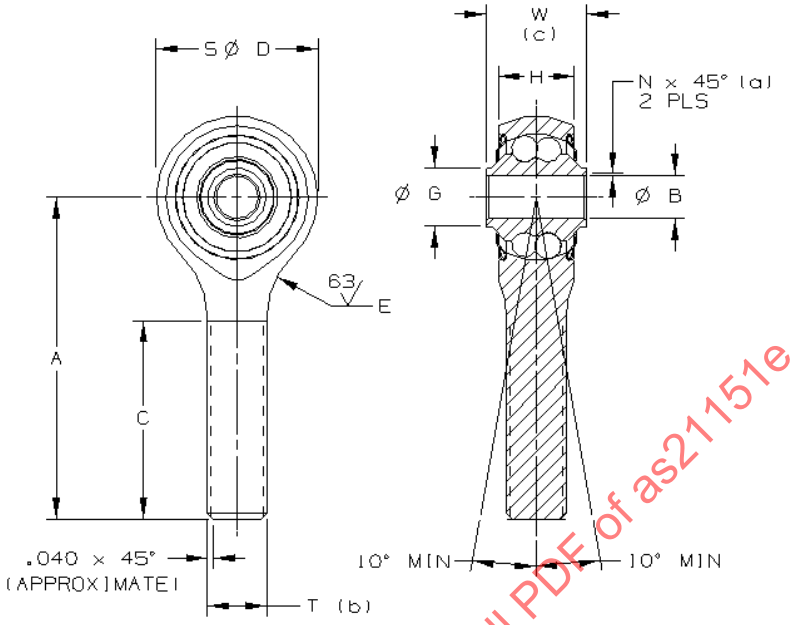


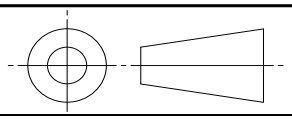
FIGURE 1

TABLE 1 - DIMENSIONS AND TOLERANCES

MS21151 DASH NUMBER (c)	BORE SIZE NOM.	A	ØB	C	ØD	E	H	N	ØG	T THREAD	W	WT LB APPROX
		±.010	+.0000 −.0003	±.031	±.010	NOM	±.010	+.015 −.000	MIN.	UNJF-3A	+.000 −.005	
-1	3/16	1.375	.1900	.750	.781	.422	.328	.005	.276	.1900-32 LH	.437	.04
-2										.1900-32 RH		
-3		2.031		1.313	.969	.500	.407		.299	.3750-24 RH	.500	.05
-4		1.375		.750	.781	.390	.328		.276		.437	
-5										.3750-24 LH		
-6		1.812		.938		.562	.438		.307	.2500-28 RH	.500	.10
-7		1.563		1.000		.344	.328		.276		.437	.05
-8	1/4	1.875	.2500	1.125	.938	.469	.438		.340	.3750-24 RH	.593	.10
-9										.3750-24 LH		
-10	5/16	2.438	.3125	1.563	1.250	.500	.656	.015	.501	.3750-24 RH	.870	.24
-11										.4375-20 RH		
-12										.6250-18 RH		
-13	5/8	2.750	.6250	1.500	2.000	.500	.938	.015	.875	.6250-18 RH	1.125	.71

SAE values your input. To provide feedback on this Technical Report, please visit
http://www.sae.org/technical/standards/AS21151E

THIRD ANGLE PROJECTION



ISSUED 1998-01 REVISED 2009-12

CUSTODIAN: SAE AIRFRAME CONTROL BEARINGS GROUP

PROCUREMENT SPECIFICATION: AS6039

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

BEARING, BALL, ROD END, DOUBLE ROW, PRECISION, EXTERNAL THREAD, SELF-ALIGNING, AIRFRAME, TYPE II, -65 TO 300 °F

TABLE 2 - ENGINEERING DATA

MS21151 DASH NUMBER (c)	RADIAL STRENGTH		AXIAL STRENGTH		RADIAL LOAD RATING 10 000 COMPLETE 90° CYCLES (e) (f)		MAXIMUM STARTING TORQUE
	LIMIT LOAD LBF	FRACTURE LOAD LBF	LIMIT LOAD LBF	FRACTURE LOAD LBF	CASE I	CASE II	IN-OZ
-1	1000	1500	200	300	1000	1000	3.0
-2							
-3	1200	1800	240	360	1200	1200	
-4	1000	1500	200	300	1000	1000	
-5							
-6							
-7							
-8	1720	2580	345	520	1720	1720	4.0
-9							
-10	2920	4375	585	880	2920	2600	6.0
-11							
-12							
-13	7090	10 600	1420	2130	6160	5340	8.0

REQUIREMENTS:

(a) A RADIUS GIVING THE SAME FILLET CLEARANCE WILL BE ACCEPTABLE.

(b) THREADS SHALL CONFORM TO UNJF-3A IN ACCORDANCE WITH AS8879. EXTERNAL THREADS SHALL BE FULLY FORMED BY A SINGLE ROLLING PROCESS. THREAD LENGTH SHALL BE TOTAL LENGTH "C" ALLOWING A MAXIMUM OF TWO IMPERFECT THREADS.

(c) KEYWAY SLOT IF REQUIRED SHALL BE IN ACCORDANCE WITH NASM14198 AND SHALL BE DESIGNATED BY ADDING SUFFIX "C" TO THE DASH NUMBER (-3 THROUGH -13 ONLY).

(d) 10 DEGREES MIN. ALLOWED MISALIGNMENT IN EITHER DIRECTION SHALL OCCUR WITHOUT INTERFERENCE BETWEEN BALL HOUSING AND SURFACES INDICATED BY DIMENSION "W".

(e) CASE I - LOAD FIXED WITH RESPECT TO OUTER RACE (AVERAGE LIFE RATING).
CASE II - LOAD FIXED WITH RESPECT TO INNER RACE (AVERAGE LIFE RATING).

(f) THESE RATINGS ARE FOR OPERATIONS UP TO 250 °F MAXIMUM WHEN SUBJECTED TO OPERATION ABOVE 250 °F. THE RATINGS SHOULD BE REDUCED BY 20%.

NOTES:

NOTICE

THIS DOCUMENT REFERENCES A PART WHICH CONTAINS CADMIUM AS A PLATING MATERIAL. CONSULT LOCAL OFFICIALS IF YOU HAVE QUESTIONS CONCERNING CADMIUM'S USE.

1. FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER ANY OTHER DOCUMENTS REFERENCED HEREIN.

2. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BID.

3. RADIAL CLEARANCE: .0000 TO .0004 INCHES UNDER 5.5 LB FULLY REVERSING GAGE LOAD.

4. AXIAL CLEARANCE: .0000 TO .003 INCHES UNDER 5.5 LB FULLY REVERSING GAGE LOAD.