

REV.
B

SAE AS21443

FEDERAL SUPPLY CLASS
3110

RATIONALE

IN ORDER TO BRING THE AS21443 DOCUMENT UP TO DATE WITH ALL THE REFERENCE DOCUMENTS, REVISION WAS CREATED. THE CHANGES MADE WERE EDITORIAL AND TO MAKE THE FORMAT THE SAME AS SIMILAR DOCUMENTS WITHIN THE WORKING GROUP. A CODE "E" FOR USE OF ZINC-NICKEL PLATING WAS IMPLEMENTED. THE SEAL MATERIAL POLYTETRAFLUOROETHYLENE SHEET PER AMS3666 WAS REMOVED.

NOTICE

UNDER DEPARTMENT OF DEFENSE POLICIES AND PROCEDURES, ANY QUALIFICATION REQUIREMENTS AND ASSOCIATED QUALIFIED PRODUCTS LIST ARE MANDATORY FOR DOD CONTRACTS. ANY REQUIREMENT RELATING TO QUALIFIED PRODUCTS LISTS / DATABASES (QPL/QPD'S) HAS NOT BEEN ADOPTED BY SAE AND IS NOT PART OF THIS TECHNICAL REPORT.

THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF SAE AS7949.

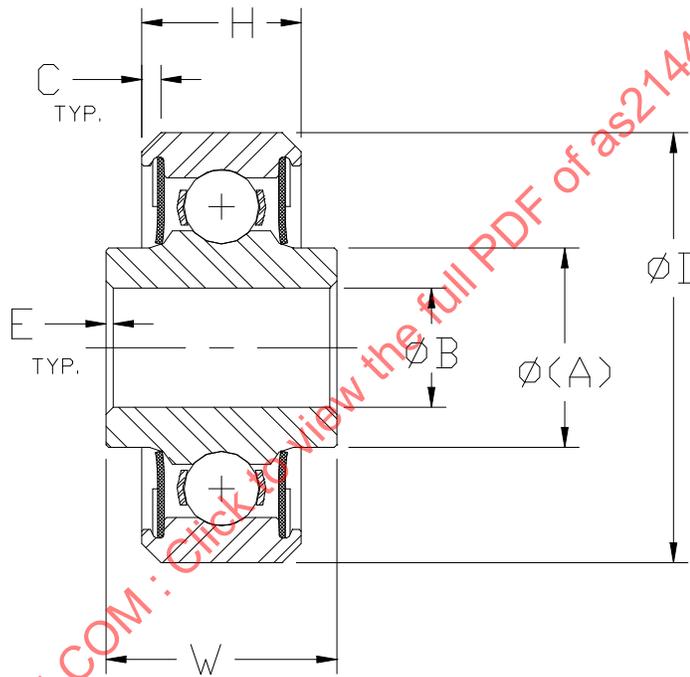
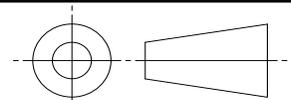


FIGURE 1 - PART CONFIGURATION

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THIRD ANGLE PROJECTION



ISSUED 1998-04 REVISED 2012-07

CUSTODIAN: AIRFRAME CONTROL BEARINGS GROUP

PROCUREMENT SPECIFICATION: AS7949

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

BEARING, BALL, AIRFRAME
ANTI-FRICTION, PULLEY

SAE AS21443
SHEET 1 OF 3

REV. B

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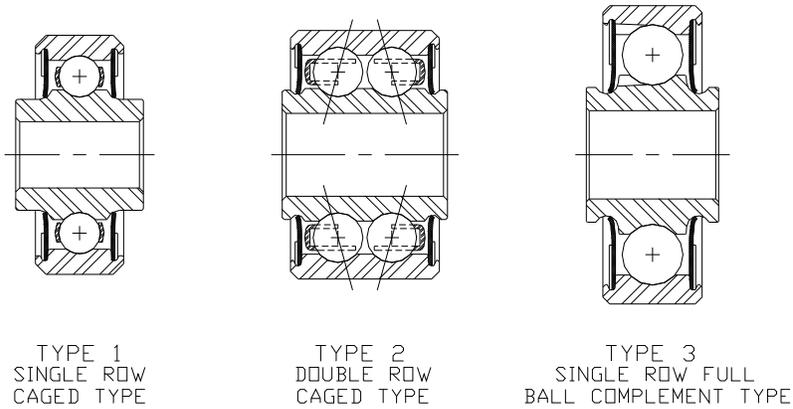


FIGURE 2 - PART CONFIGURATION TYPES

TABLE 1 - DIMENSIONS AND LOADS

MS DASH NO.	TYPE SEE FIGURE 2	øB BORE +.0000 -.0005	øD OUTSIDE DIAMETER +.0000 -.0005	W WIDTH INNER RING +.000 -.005	H WIDTH OUTER RING +.000 -.005	(øA) SHOULDER DIAMETER INNER RING (REF)	E CORNER CHAMFER X 45°		RADIAL LIMIT LOAD RATING LB	THRUST LIMIT LOAD RATING LB	6/ RADIAL LOAD RATING (LB) FOR AVERAGE LIFE OF 10 000 COMPLETE 90° CYCLES		WEIGHT POUNDS (APPROX)
							4/ INNER RING BORE +.015 -.000	3/ OUTER RING OD +.015 -.000			CASE I	CASE II	
-3A	TYPE 1	.1900	.6250	.297	.234	.297	.005	.016	705	385	705	705	.01
-3B	TYPE 1	.1900	.7774	.297	.270	.332	.005	.024	1090	600	1090	1090	.02
-4A	TYPE 1	.2500	.7500	.438	.312	.372	.005	.016	1090	600	1090	1090	.03
-4B	TYPE 1	.2500	.8750	.438	.375	.423	.005	.022	1710	800	1710	1710	.04
-4C	TYPE 1	.2500	.9014	.484	.335	.390	.005	.034	1710	800	1710	1710	.04
-5A	TYPE 1	.3125	.8750	.625	.375	.455	.005	.022	1710	800	1710	1710	.04
-5B	TYPE 2	.3125	.9375	.625	.563	.455	.005	.022	3420	1030	3250	2800	.07
-8	TYPE 3	.5000	1.6875	.750	.563	.768	.005	.032	11 800	5200	9320	7730	.24
-10	TYPE 1	.6250	1.1875	.438	.375	.769	.005	.022	2440	1100	2420	2180	.06

1/ ALL DIMENSIONS TO BE MET AFTER PLATING.

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

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

4/ A RADIUS GIVING APPROXIMATELY THE SAME FILET 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%.

REQUIREMENTS:

1. MATERIAL: RINGS AND BALLS: 52100 STEEL PER AMS6440 OR AMS6444

BALL RETAINER: COLD ROLLED STEEL

SEALS: POLYTETRAFLUOROETHYLENE (PTFE) PER AMS3652

SEAL RETAINERS: ANY CORROSION RESISTANT STEEL

2. LUBRICANT: MIL-PRF-81322 OR MIL-PRF-23827 TYPE I. ALL BEARINGS SHALL BE PACKED WITH AN 80% MINIMUM GREASE FILL CONFORMING TO MIL-PRF-81322 UNLESS OTHERWISE SPECIFIED. IF MIL-PRF-23827 TYPE I IS REQUIRED, ADD THE DESIGNATOR "G" AFTER THE MS21443 DASH NUMBER. MIL-PRF-23827 TYPE I SHALL NOT BE USED FOR OPERATION WHERE TEMPERATURES EXCEED 250 °F.

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	BEARING, BALL, AIRFRAME ANTI-FRICTION, PULLEY			