

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

REV.
C

AS21443™

FEDERAL SUPPLY CLASS
3110

RATIONALE

AS21443 REV C IS A FIVE YEAR REVIEW. SPECIFIED MATERIAL FOR CAGE AND SEAL RETAINER, REMOVE DEPARTMENT OF DEFENCE STATEMENT FROM NOTICE SECTION.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS7949.

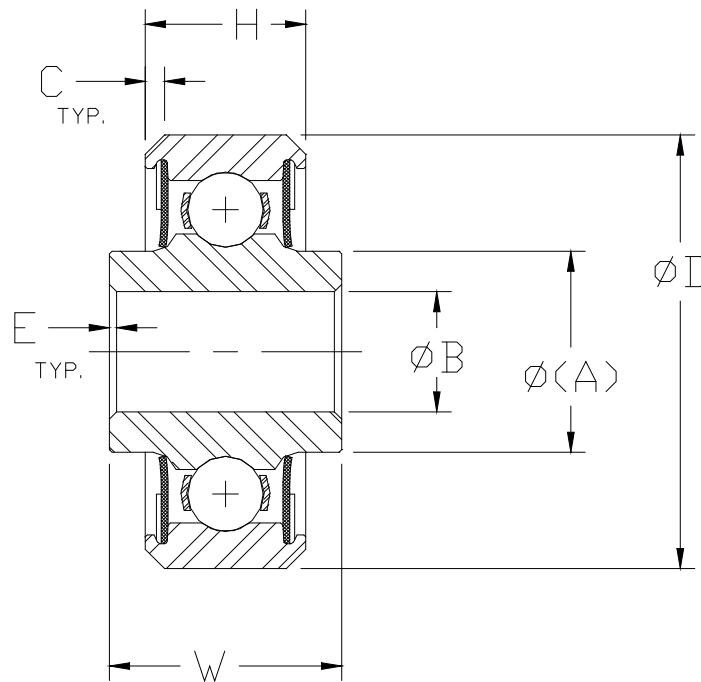
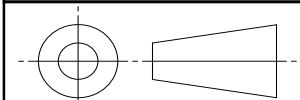


FIGURE 1 - PART CONFIGURATION

SAE values your input. To provide feedback on this Technical Report, please visit <http://standards.sae.org/AS21443C>

THIRD ANGLE PROJECTION



CUSTODIAN: ACBG

PROCUREMENT SPECIFICATION: AS7949



AEROSPACE STANDARD

BEARING, BALL, AIRFRAME
ANTI-FRICTION, PULLEY

AS21443™
SHEET 1 OF 3

REV.
C

Copyright © 2019 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
Fax: 724-776-0790

Tel: +1 724-776-4970 (outside USA)
Email: CustomerService@sae.org

SAE WEB ADDRESS: <http://www.sae.org>

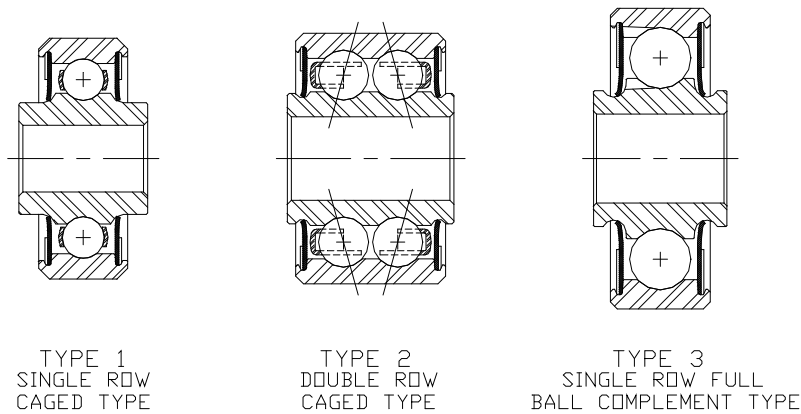


FIGURE 2 - PART CONFIGURATION TYPES

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)	CORNER CHAMFER X 45°		RADIAL LIMIT LOAD RATING LB	THRUST LIMIT LOAD RATING LB	5/ RADIAL LOAD RATING (LB) FOR AVERAGE LIFE OF 10000 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	11800	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 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%.

REQUIREMENTS:

- MATERIAL: RINGS AND BALLS: 52100 STEEL PER AMS6440 OR AMS6444

BALL RETAINER: AISI 1008 OR 1010 STEEL PER AMS-STD-66

301 CRES PER AMS5519,
302 CRES PER AMS5515 OR AMS5516
304 CRES PER AMS5513
305 CRES PER AMS5514 OR AMS5686
410 CRES PER AMS5504
430 CRES PER ASTM A 240 OR AMS5503

SEALS: POLYTETRAFLUOROETHYLENE (PTFE) PER AMS3652

SEAL RETAINERS: 301 CRES PER AMS5519,
302 CRES PER AMS5515, AMS5516, OR AMS5906,
304 CRES PER AMS5513 OR AMS5913,
430 CRES PER AMS5503 OR AMS-QQ-S-763

- 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.

	AEROSPACE STANDARD		AS21443™ SHEET 2 OF 3	REV. C
	BEARING, BALL, AIRFRAME ANTI-FRICTION, PULLEY			

 Documents



Documents

Document Sharing Hub