

NOTICE

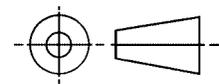
THIS DOCUMENT HAS BEEN TAKEN DIRECTLY FROM U.S. MILITARY SPECIFICATION MS9319A, NOTICE 1 AND CONTAINS ONLY MINOR EDITORIAL AND FORMAT CHANGES REQUIRED TO BRING IT INTO CONFORMANCE WITH THE PUBLISHING REQUIREMENTS OF SAE TECHNICAL STANDARDS. THE INITIAL RELEASE OF THIS DOCUMENT IS INTENDED TO REPLACE MS9319A, NOTICE 1. ANY PART NUMBERS ESTABLISHED BY THE ORIGINAL SPECIFICATION REMAIN UNCHANGED.

THE ORIGINAL MILITARY SPECIFICATION WAS ADOPTED AS AN SAE STANDARD UNDER THE PROVISIONS OF THE SAE TECHNICAL STANDARDS BOARD (TSB) RULES AND REGULATIONS (TSB 001) PERTAINING TO ACCELERATED ADOPTION OF GOVERNMENT SPECIFICATIONS AND STANDARDS. TSB RULES PROVIDE FOR (A) THE PUBLICATION OF PORTIONS OF UNREVISED GOVERNMENT SPECIFICATIONS AND STANDARDS WITHOUT CONSENSUS VOTING AT THE SAE COMMITTEE LEVEL, AND (B) THE USE OF THE EXISTING GOVERNMENT SPECIFICATION OR STANDARD FORMAT.

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

SAENORM.COM : Click to view the full PDF of as9319

THIRD ANGLE PROJECTION



ISSUED 1999-12 REAFFIRMED 2004-07

AS9319

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 reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

PREPARED BY SAE COMMITTEE E-25

PROCUREMENT SPECIFICATION: NONE



**AEROSPACE STANDARD**

RIVET, SOLID - UNIVERSAL HEAD,  
AMS 7233

**AS9319**  
SHEET 1 OF 5

Copyright 2004 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: 724-776-4970 (outside USA)  
Email: custsvc@sae.org

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

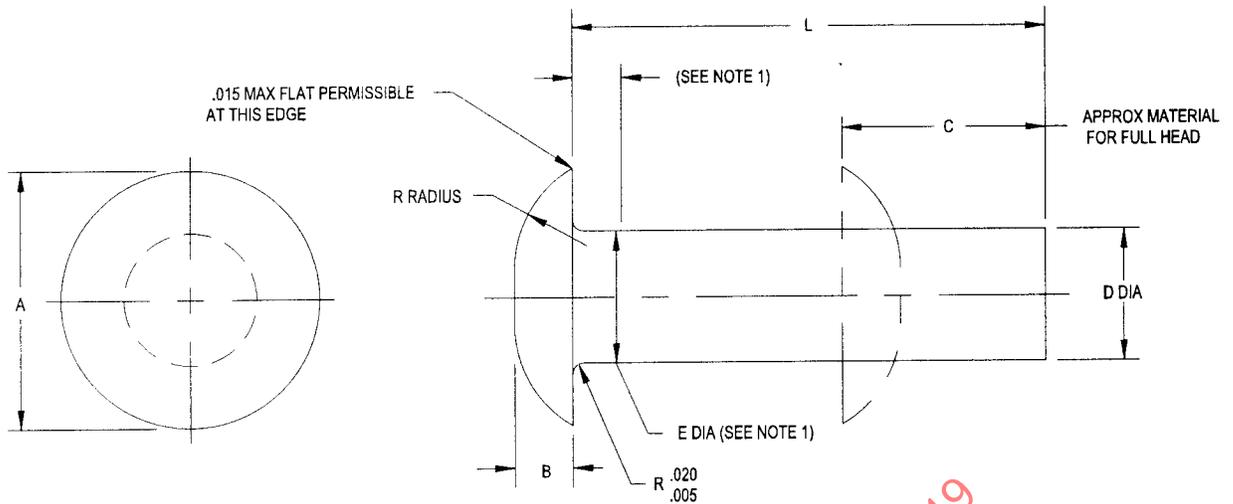


FIGURE 1 - RIVET

TABLE I - DIMENSIONS

NOMINAL SIZE	ØA	B + .010 - .000	C	ØD	ØE	R	(2) S
.062	.119 - .131	.027	.094	.061 - .063	.061 - .064	.054	.010
.094	.179 - .197	.040	.141	.093 - .095	.093 - .096	.082	.010
.125	.238 - .262	.054	.188	.123 - .126	.123 - .128	.108	.010
.156	.296 - .328	.067	.234	.154 - .157	.154 - .159	.135	.015
.188	.356 - .394	.080	.281	.186 - .189	.186 - .191	.164	.015
.250	.475 - .525	.107	.375	.248 - .252	.248 - .254	.217	.020
.312	.594 - .656	.133	.469	.310 - .314	.310 - .316	.272	.020
.375	.713 - .787	.161	.562	.373 - .377	.373 - .379	.328	.020

TABLE II - DIMENSIONS AND PART NUMBERS

NOM SIZE	.062		.094		.125		.156	
	L	PART NO.	PART NO.	APPROX WEIGHT LB/100	PART NO.	APPROX WEIGHT LB/100	PART NO.	APPROX WEIGHT LB/100
.125	MS9319-002	.02						
.156	MS9319-003	.02						
.188	MS9319-004	.02	MS9319-050	.06	MS9319-096	.13		
.219	MS9319-005	.03	MS9319-051	.07	MS9319-097	.14		
.250	MS9319-006	.03	MS9319-052	.08	MS9319-098	.15	MS9319-144	.24
.281	MS9319-007	.03	MS9319-053	.08	MS9319-099	.16	MS9319-145	.26
.312	MS9319-008	.04	MS9319-054	.09	MS9319-100	.17	MS9319-146	.28
.344	MS9319-009	.04	MS9319-055	.10	MS9319-101	.19	MS9319-147	.30
.375	MS9319-010	.04	MS9319-056	.10	MS9319-102	.20	MS9319-148	.32
.406	MS9319-011	.04	MS9319-057	.11	MS9319-103	.21	MS9319-149	.34
.438	MS9319-012	.05	MS9319-058	.12	MS9319-104	.22	MS9319-150	.36
.469	MS9319-013	.05	MS9319-059	.12	MS9319-105	.24	MS9319-151	.38
.500	MS9319-014	.05	MS9319-060	.13	MS9319-106	.25	MS9319-152	.40
.531	MS9319-015	.06	MS9319-061	.14	MS9319-107	.26	MS9319-153	.42
.562	MS9319-016	.06	MS9319-062	.14	MS9319-108	.27	MS9319-154	.44
.594	MS9319-017	.06	MS9319-063	.15	MS9319-109	.29	MS9319-155	.46
.625	MS9319-018	.07	MS9319-064	.16	MS9319-110	.30	MS9319-156	.48
.656			MS9319-065	.17	MS9319-111	.31	MS9319-157	.50
.688			MS9319-066	.17	MS9319-112	.32	MS9319-158	.52
.719			MS9319-067	.18	MS9319-113	.34	MS9319-159	.53
.750			MS9319-068	.19	MS9319-114	.35	MS9319-160	.55
.812			MS9319-070	.20	MS9319-116	.37	MS9319-162	.59
.875			MS9319-072	.21	MS9319-118	.40	MS9319-164	.63
.938			MS9319-074	.23	MS9319-120	.42	MS9319-166	.67
1.000			MS9319-076	.24	MS9319-122	.45	MS9319-168	.71
1.062					MS9319-124	.47	MS9319-170	.75
1.125					MS9319-126	.50	MS9319-172	.79
1.188					MS9319-128	.52	MS9319-174	.83
1.250					MS9319-130	.55	MS9319-176	.86
1.312					MS9319-132	.58	MS9319-178	.90
1.375					MS9319-134	.60	MS9319-180	.94
1.438					MS9319-136	.62	MS9319-182	.98
1.500					MS9319-138	.65	MS9319-184	1.02

SAENORM.COM : Click to view the PDF of AS9319

TABLE II - DIMENSIONS AND PART NUMBERS - CONTINUED

**AS9319**

NOM SIZE	.188		.250		.312		.375		
	L	PART NO.	APPROX WEIGHT LB/100						
.125									
.156									
.188									
.219									
.250	MS9319-190	.38							
.281	MS9319-191	.41							
.312	MS9319-192	.44	MS9319-238	.89					
.344	MS9319-193	.47	MS9319-239	.94					
.375	MS9319-194	.50	MS9319-240	.99					
.406	MS9319-195	.53	MS9319-241	1.04					
.438	MS9319-196	.54	MS9319-242	1.09					
.469	MS9319-197	.58	MS9319-243	1.14					
.500	MS9319-198	.61	MS9319-244	1.19					
.531	MS9319-199	.64	MS9319-245	1.24					
.562	MS9319-200	.67	MS9319-246	1.29	MS9319-292	2.15			
.594	MS9319-201	.69	MS9319-247	1.34	MS9319-293	2.23			
.625	MS9319-202	.72	MS9319-248	1.39	MS9319-294	2.31			
.656	MS9319-203	.75	MS9319-249	1.44	MS9319-295	2.39			
.688	MS9319-204	.78	MS9319-250	1.49	MS9319-296	2.47			
.719	MS9319-205	.81	MS9319-251	1.54	MS9319-297	2.54			
.750	MS9319-206	.83	MS9319-252	1.59	MS9319-298	2.62	MS9319-344	4.00	
.812	MS9319-208	.89	MS9319-254	1.69	MS9319-300	2.77	MS9319-346	4.22	
.875	MS9319-210	.95	MS9319-256	1.79	MS9319-302	2.93	MS9319-348	4.45	
.938	MS9319-212	1.00	MS9319-258	1.89	MS9319-304	3.09	MS9319-350	4.68	
1.000	MS9319-214	1.06	MS9319-260	1.99	MS9319-306	3.25	MS9319-352	4.90	
1.062	MS9319-216	1.12	MS9319-262	2.09	MS9319-306	3.41	MS9319-354	5.11	
1.125	MS9319-218	1.17	MS9319-264	2.19	MS9319-310	3.57	MS9319-356	5.35	
1.188	MS9319-220	1.23	MS9319-266	2.29	MS9319-312	3.71	MS9319-358	5.56	
1.250	MS9319-222	1.28	MS9319-268	2.39	MS9319-314	3.87	MS9319-360	5.80	
1.312	MS9319-224	1.34	MS9319-270	2.49	MS9319-316	4.03	MS9319-362	6.04	
1.375	MS9319-226	1.39	MS9319-272	2.59	MS9319-318	4.19	MS9319-364	6.25	
1.438	MS9319-228	1.45	MS9319-274	2.69	MS9319-320	4.34	MS9319-366	6.48	
1.500	MS9319-230	1.51	MS9319-276	2.79	MS9319-322	4.50	MS9319-368	6.70	

SAENORM.COM To view the PDF of AS9319