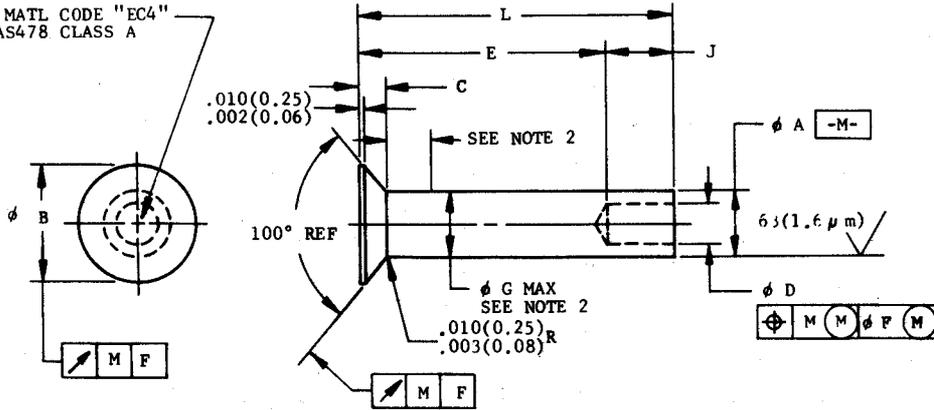


AS3228

SHEET 1 OF 4

FFD SUP CLASS
5320

MARK MATL CODE "EC4"
PER AS478 CLASS A

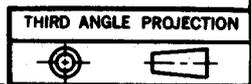


SAE Technical Board rules provide that: "All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to any SAE standard or recommended practice, and no commitment to conform to or be guided by any technical report. In formulating and approving technical reports, the Board and its Committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against infringement of patents."

NOMINAL DIAMETER		A		B		C		D	
IN.	(mm)	IN.	(mm)	IN.	(mm)	IN.	(mm)	IN.	(mm)
.062	1.57	.061-.063	1.55-1.60	.099-.107	2.52- 2.71	.019-.023	0.49-0.58	.021-.026	0.54-0.66
.094	2.39	.093-.095	2.37-2.41	.164-.172	4.17- 4.36	.033-.037	0.84-0.93	.045-.050	1.15-1.27
.125	3.18	.123-.126	3.13-3.20	.210-.218	5.34- 5.53	.039-.043	1.00-1.09	.060-.065	1.53-1.65
.156	3.96	.154-.157	3.92-3.98	.272-.280	6.91- 7.11	.052-.056	1.33-1.42	.092-.097	2.34-2.46
.188	4.78	.186-.189	4.73-4.80	.337-.347	8.56- 8.81	.067-.071	1.71-1.80	.107-.112	2.72-2.84
.250	6.35	.248-.252	6.30-6.40	.460-.470	11.69-11.93	.092-.096	2.34-2.43	.154-.159	3.92-4.03

NOMINAL DIAMETER		F		G MAX		J (REF)	
IN.	(mm)	IN.	(mm)	IN.	(mm)	IN.	(mm)
.062	1.57	.010	0.25	.064	1.62	.090	2.29
.094	2.39	.010	0.25	.096	2.43	.105	2.67
.125	3.18	.010	0.25	.128	3.25	.130	3.30
.156	3.96	.015	0.38	.158	4.01	.155	3.94
.188	4.78	.015	0.38	.191	4.85	.180	4.57
.250	6.35	.020	0.50	.254	6.45	.230	5.84

1. MATERIAL: CRES AMS 7228
2. ϕ G FOR DISTANCE OF .060(1.52) FOR LENGTHS .188(4.78) AND SHORTER AND .100(2.54) FOR LENGTHS LONGER THAN .188(4.78).
3. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36-1978; REQUIREMENTS PER ANSI B46.1-1978. UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 250 MICROINCHES (6.3 MICROMETRES).
4. DIMENSIONS AND TOLERANCES: ANSI Y14.5-1973.
5. DIMENSIONS IN INCHES (MILLIMETRES), METRIC CONVERSIONS IN PARENTHESES ARE IN INTERNATIONAL SYSTEMS UNITS (SI).
6. BREAK SHARP EDGES .003-.015(0.08-0.38) UNLESS OTHERWISE SPECIFIED.
7. DO NOT USE UNASSIGNED PART NUMBERS.



PREPARED BY SAE COMMITTEE E-25, ENGINE AND PROPELLER STANDARD UTILITY PARTS

Society of Automotive Engineers, Inc.
400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

AEROSPACE STANDARD

RIVET - TUBULAR, COUNTERSUNK, AMS 7228

AS3228

SHEET 1 OF 4

Copyright 1979 by the Society of Automotive Engineers, Inc. Printed in U.S.A.
All rights reserved.

REAFFIRMED

11/91 5/95

Issued June 1979 Revised

L		A = .062 (1.57)				A = .094 (2.39)			
IN.	(mm)	PART NO.	E		PART NO.	E		APPROX MASS	
			IN.	(mm)		IN.	(mm)	LB/100	kg/100
.146- .166	3.71- 4.21	AS3228-001	.051-.081	1.30- 2.05	AS3228-051	.036-.066	0.92- 1.67	.031	.014
.178- .198	4.53- 5.02	AS3228-002	.083-.103	2.11- 3.30	AS3228-052	.068-.098	1.73- 2.48	.037	.017
.209- .229	5.31- 5.81	AS3228-003	.114-.144	2.90- 3.65	AS3228-053	.099-.129	2.52- 3.27	.043	.020
.240- .260	6.10- 6.60	AS3228-004	.145-.175	3.69- 4.44	AS3228-054	.130-.160	3.31- 4.06	.049	.022
.271- .291	6.89- 7.39	AS3228-005	.176-.206	4.48- 5.23	AS3228-055	.161-.191	4.09- 4.85	.055	.025
.302- .322	7.68- 8.17	AS3228-006	.207-.237	5.26- 6.01	AS3228-056	.192-.222	4.88- 5.63	.062	.028
.334- .354	8.49- 8.99	AS3228-007	.239-.269	6.08- 6.83	AS3228-057	.224-.254	5.69- 6.45	.068	.031
.365- .385	9.28- 9.77	AS3228-008	.270-.300	6.86- 7.62	AS3228-058	.255-.285	6.48- 7.23	.074	.034
.396- .416	10.06-10.56	AS3228-009	.301-.331	7.65- 8.40	AS3228-059	.286-.316	7.27- 8.02	.084	.036
.428- .448	10.88-11.37	AS3228-010	.333-.363	8.46- 9.22	AS3228-060	.318-.348	8.08- 8.84	.086	.039
.459- .479	11.66-12.16	AS3228-011	.364-.394	9.25-10.00	AS3228-061	.349-.379	8.87- 9.62	.093	.042
.490- .510	12.45-12.95	AS3228-012	.395-.425	10.04-10.79	AS3228-062	.380-.410	9.66-10.41	.099	.045
.521- .541	13.24-13.74	AS3228-013	.426-.456	10.83-11.58	AS3228-063	.411-.441	10.44-11.20	.105	.048
.552- .572	14.03-14.52	AS3228-014	.457-.487	11.61-12.36	AS3228-064	.442-.472	11.23-11.98	.110	.050
.584- .604	14.84-15.34	AS3228-015	.489-.519	12.43-13.18	AS3228-065	.474-.504	12.04-12.80	.117	.053
.615- .635	15.63-16.12				AS3228-066	.505-.535	12.83-13.58	.123	.056
.645- .665	16.39-16.88				AS3228-067	.536-.566	13.62-14.37	.129	.059
.678- .698	17.23-17.72				AS3228-068	.568-.598	14.43-15.18	.136	.062
.709- .729	18.01-18.51				AS3228-069	.599-.629	15.22-15.97	.142	.064
.740- .760	18.80-19.30				AS3228-070	.630-.660	16.01-16.76	.148	.067
.771- .791	19.59-20.09				AS3228-071	.661-.691	16.79-17.55	.154	.070
.802- .822	20.38-20.87				AS3228-072	.692-.722	17.58-18.33	.160	.073
.834- .854	21.19-21.69				AS3228-073	.724-.754	18.39-19.15	.167	.076
.865- .885	21.98-22.47				AS3228-074	.755-.785	19.18-19.93	.173	.078
.896- .916	22.76-23.26				AS3228-075	.786-.816	19.97-20.72	.179	.081
.928- .948	23.58-24.07				AS3228-076	.818-.848	20.78-21.53	.185	.084
.959- .979	24.36-24.86				AS3228-077	.849-.879	21.57-22.32	.191	.087
.990-1.010	25.15-25.65				AS3228-078	.880-.910	22.36-23.11	.197	.089
1.052-1.072	26.73-27.22				AS3228-079	.942-.972	23.93-24.68	.210	.095
1.115-1.135	28.33-28.82				AS3228-080	1.005-1.035	25.53-26.28	.222	.101
1.178-1.198	29.93-30.42				AS3228-081	1.068-1.098	27.13-27.88	.234	.106
1.240-1.260	31.50-32.00				AS3228-082	1.130-1.160	28.71-29.46	.247	.112
1.302-1.322	33.08-33.57				AS3228-083	1.192-1.222	30.28-31.03	.259	.117
1.365-1.385	34.68-35.17				AS3228-084	1.255-1.285	31.88-32.63	.271	.124
1.428-1.448	36.28-36.77				AS3228-085	1.318-1.348	33.48-34.23	.284	.129
1.490-1.510	37.85-38.35				AS3228-086	1.380-1.410	35.06-35.81	.296	.134

Click to view the full PDF

PREPARED BY SAE COMMITTEE E-25, ENGINE AND PROPELLER STANDARD UTILITY PARTS

Society of Automotive Engineers, Inc.

AEROSPACE STANDARD
RIVET - TUBULAR, COUNTERSUNK, AMS 7228

AS3228

SHEET 2 OF 4

Issued Revised

AS3228

SHEET 3 OF 4

L		A ⁿ .125 (3.18)			A ⁿ .156 (3.96)		
IN.	(mm)	PART NO.	E		PART NO.	E	
			IN.	(mm)		IN.	(mm)
		APPROX MASS		APPROX MASS		APPROX MASS	
		LB/100	kg/100	LB/100	kg/100	LB/100	kg/100
.178-.198	4.53-5.02	AS3228-102	.043-.073	1.10-1.85	AS3228-154	.080-.110	2.04-2.79
.209-.229	5.31-5.81	AS3228-103	.074-.104	1.88-2.64	AS3228-155	.111-.141	2.82-3.58
.240-.260	6.10-6.60	AS3228-104	.105-.135	2.67-3.42	AS3228-156	.142-.172	3.61-4.36
.271-.291	6.89-7.39	AS3228-105	.136-.166	3.46-4.21	AS3228-157	.174-.204	4.42-5.18
.302-.322	7.68-8.17	AS3228-106	.167-.197	4.25-5.00	AS3228-158	.205-.235	5.21-5.96
.334-.354	8.49-8.99	AS3228-107	.199-.229	5.06-5.81	AS3228-159	.236-.266	6.00-6.75
.365-.385	9.28-9.77	AS3228-108	.230-.260	5.85-6.60	AS3228-160	.268-.298	6.81-7.56
.396-.416	10.06-10.56	AS3228-109	.261-.291	6.63-7.39	AS3228-161	.299-.329	7.60-8.35
.428-.448	10.88-11.37	AS3228-110	.293-.323	7.45-8.20	AS3228-162	.330-.360	8.39-9.14
.459-.479	11.66-12.16	AS3228-111	.324-.354	8.23-8.99	AS3228-163	.361-.391	9.17-9.93
.490-.510	12.45-12.95	AS3228-112	.355-.385	9.02-9.77	AS3228-164	.392-.422	9.96-10.71
.521-.541	13.24-13.74	AS3228-113	.386-.416	9.81-10.56	AS3228-165	.424-.454	10.77-11.53
.552-.572	14.03-14.52	AS3228-114	.417-.447	10.47-11.22	AS3228-166	.455-.485	11.56-12.31
.584-.604	14.84-15.34	AS3228-115	.449-.479	11.41-12.16	AS3228-167	.486-.516	12.35-13.10
.615-.635	15.63-16.12	AS3228-116	.480-.510	12.20-12.95	AS3228-168	.518-.548	13.16-13.91
.645-.665	16.39-16.89	AS3228-117	.511-.541	12.98-13.74	AS3228-169	.549-.579	13.95-14.70
.678-.698	17.23-17.72	AS3228-118	.543-.573	13.29-14.04	AS3228-170	.580-.610	14.74-15.49
.709-.729	18.01-18.51	AS3228-119	.574-.604	14.58-15.34	AS3228-171	.611-.641	15.52-16.28
.740-.760	18.80-19.30	AS3228-120	.605-.635	15.37-16.12	AS3228-172	.642-.672	16.31-17.06
.771-.791	19.59-20.09	AS3228-121	.636-.666	16.16-16.91	AS3228-173	.674-.704	17.12-17.88
.802-.822	20.38-20.87	AS3228-122	.667-.697	16.95-17.70	AS3228-174	.705-.735	17.91-18.66
.834-.854	21.19-21.69	AS3228-123	.699-.729	17.76-18.51	AS3228-175	.736-.766	18.70-19.45
.865-.885	21.98-22.47	AS3228-124	.730-.760	18.55-19.30	AS3228-176	.768-.798	19.51-20.26
.896-.916	22.76-23.26	AS3228-125	.761-.791	19.33-20.09	AS3228-177	.799-.829	20.30-21.05
.928-.948	23.58-24.07	AS3228-126	.793-.823	20.15-20.90	AS3228-178	.830-.860	21.09-21.84
.959-.979	24.36-24.86	AS3228-127	.824-.854	20.93-21.69	AS3228-179	.862-.892	22.66-23.41
.990-1.010	25.15-25.65	AS3228-128	.855-.885	21.72-22.47	AS3228-180	.893-.923	24.26-25.01
1.052-1.072	26.73-27.22	AS3228-129	.917-.947	23.30-24.05	AS3228-181	.924-.954	25.86-26.61
1.115-1.135	28.33-28.82	AS3228-130	.980-1.010	24.90-25.65	AS3228-182	.955-.985	27.44-28.19
1.178-1.198	29.93-30.42	AS3228-131	1.043-1.073	26.50-27.25	AS3228-183	1.018-1.048	29.01-29.76
1.240-1.260	31.50-32.00	AS3228-132	1.105-1.135	28.07-28.82	AS3228-184	1.080-1.110	30.61-31.36
1.302-1.322	33.08-33.57	AS3228-133	1.167-1.197	29.65-30.40	AS3228-185	1.142-1.172	32.21-32.96
1.365-1.385	34.68-35.17	AS3228-134	1.230-1.260	31.25-32.00	AS3228-186	1.205-1.235	33.79-34.54
1.428-1.448	36.28-36.77	AS3228-135	1.293-1.323	32.85-33.60	AS3228-187	1.268-1.298	35.36-36.11
1.490-1.510	37.85-38.35	AS3228-136	1.355-1.385	34.42-35.17	AS3228-188	1.330-1.360	36.96-37.71
1.552-1.572	39.43-39.92	AS3228-137	1.417-1.447	36.00-36.75	AS3228-189	1.392-1.422	38.56-39.31
1.615-1.635	41.03-41.52	AS3228-138	1.480-1.510	37.60-38.35	AS3228-190	1.455-1.485	40.14-40.89
1.678-1.698	42.63-43.12	AS3228-139	1.543-1.573	39.20-39.95	AS3228-191	1.518-1.548	41.71-42.46
1.740-1.760	44.20-44.70	AS3228-140	1.605-1.635	40.77-41.52	AS3228-192	1.580-1.610	43.31-44.06
1.802-1.822	45.78-46.27				AS3228-193	1.642-1.672	44.91-45.66
1.865-1.885	47.38-47.87				AS3228-194	1.705-1.735	46.49-47.24
1.928-1.948	48.98-49.47						
1.990-2.010	50.55-51.05						

PREPARED BY SAE COMMITTEE E-25, ENGINE AND PROPELLER STANDARD UTILITY PARTS

Society of Automotive Engineers, Inc.

AEROSPACE STANDARD

RIVET - TUBULAR; COUNTERSUNK, AMS 7228

AS3228

SHEET 3 OF 4

Issued Revised