



AEROSPACE STANDARD

AS 870C

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

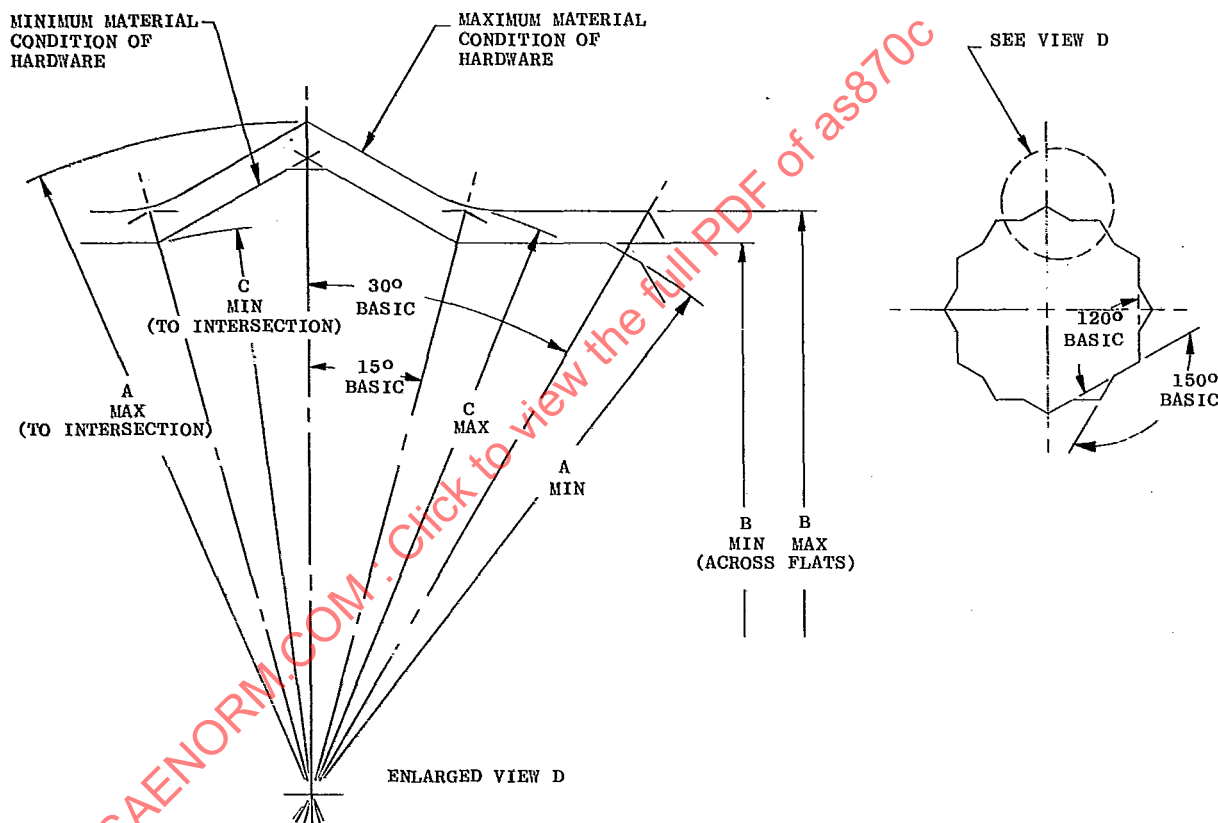
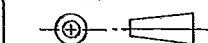
Two Pennsylvania Plaza, New York, N.Y. 10001

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WRENCHING CONFIGURATION, DOUBLE HEXAGON (12 POINT), FOR THREADED FASTENERS

THIRD ANGLE PROJECTION



VARIATIONS IN SIZE, FORM, AND POSITION OF THE 12 POINTS ARE PERMITTED WITHIN THE WRENCHING LENGTH, PROVIDING THE ACTUAL PROFILE FALLS WITHIN THE MAXIMUM AND MINIMUM MATERIAL CONDITIONS SHOWN.

NOMINAL WRENCHING SIZE VALUES INDICATE NOMINAL WIDTH ACROSS FLATS OF CORRESPONDING HEXAGON WRENCHING CONFIGURATIONS.

DIMENSIONS ARE PRIOR TO DEFORMATION OF THE LOCKING ELEMENT ON SELF LOCKING NUTS. DEFORMATION SHALL NOT PREVENT THE ASSEMBLY OF THE WRENCH ON THE PRODUCT.

MAXIMUM DIMENSIONS ACROSS FLATS (B MAX) CONFORM WITH ASCC AIR STANDARD 17/2C OR ARE CALCULATED FROM THE FORMULA GIVEN THEREIN.

MINIMUM DIMENSIONS ACROSS FLATS (B MIN) ARE DERIVED AS FOLLOWS:

B MIN = B MAX LESS THE TOLERANCE TO ISO/R286-h12 (WHERE B MAX IS LESS THAN .627 INCH)

B MIN = B MAX LESS THE TOLERANCE TO ISO/R286-h13 (WHERE B MAX IS .627 INCH AND GREATER)

MINIMUM DIMENSIONS ACROSS CORNERS (A MIN) ARE DERIVED AS FOLLOWS:

A MIN = 1.135 X B MIN (WHERE B MIN IS LESS THAN .617 INCH)

A MIN = 1.140 X B MIN (WHERE B MIN IS .617 INCH AND GREATER)

C DIAMETER MINIMUM = 1.035276 X B MIN

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."

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TABLE I INCHES
(U. S. CUSTOMARY UNITS)

DASH NO.	NOMINAL WRENCHING SIZE	MAXIMUM MATERIAL CONDITION			MINIMUM MATERIAL CONDITION		
		A DIA MAX	B MAX	C DIA MAX	A DIA MIN	B MIN	C DIA MIN
06	.1875	.2182	.189	.197	.209	.184	.1905
07	.2188	.2540	.220	.229	.244	.215	.2226
08	.2500	.2898	.251	.262	.278	.245	.2536
09	.2812	.3256	.282	.294	.313	.276	.2857
10	.3125	.3614	.313	.326	.348	.307	.3178
11	.3438	.3984	.345	.360	.385	.339	.3510
12	.3750	.4342	.376	.392	.420	.370	.3831
14	.4375	.5069	.439	.458	.490	.432	.4472
16	.5000	.5797	.502	.524	.562	.495	.5125
18	.5625	.6513	.564	.588	.632	.557	.5766
20	.6250	.7240	.627	.654	.703	.617	.6388
22	.6875	.7967	.690	.720	.775	.680	.7040
24	.7500	.8683	.752	.784	.844	.740	.7661
25	.7812	.9041	.783	.817	.879	.771	.7982
26	.8125	.9399	.814	.849	.914	.802	.8303
28	.8750	1.0127	.877	.915	.986	.865	.8955
30	.9375	1.0854	.940	.980	1.058	.928	.9607
32	1.0000	1.1570	1.002	1.045	1.129	.990	1.0249
34	1.0625	1.2286	1.064	1.110	1.199	1.052	1.0891
36	1.1250	1.3013	1.127	1.175	1.271	1.115	1.1543
38	1.1875	1.3741	1.190	1.241	1.343	1.178	1.2196
40	1.2500	1.4457	1.252	1.306	1.409	1.236	1.2796
42	1.3125	1.5173	1.314	1.371	1.480	1.298	1.3438
44	1.3750	1.5900	1.377	1.436	1.552	1.361	1.4090
46	1.4375	1.6628	1.440	1.502	1.623	1.424	1.4742
48	1.5000	1.7344	1.502	1.567	1.694	1.486	1.5384
56	1.7500	2.0230	1.752	1.828	1.979	1.736	1.7972