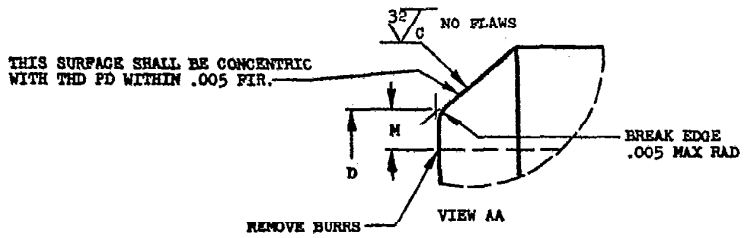
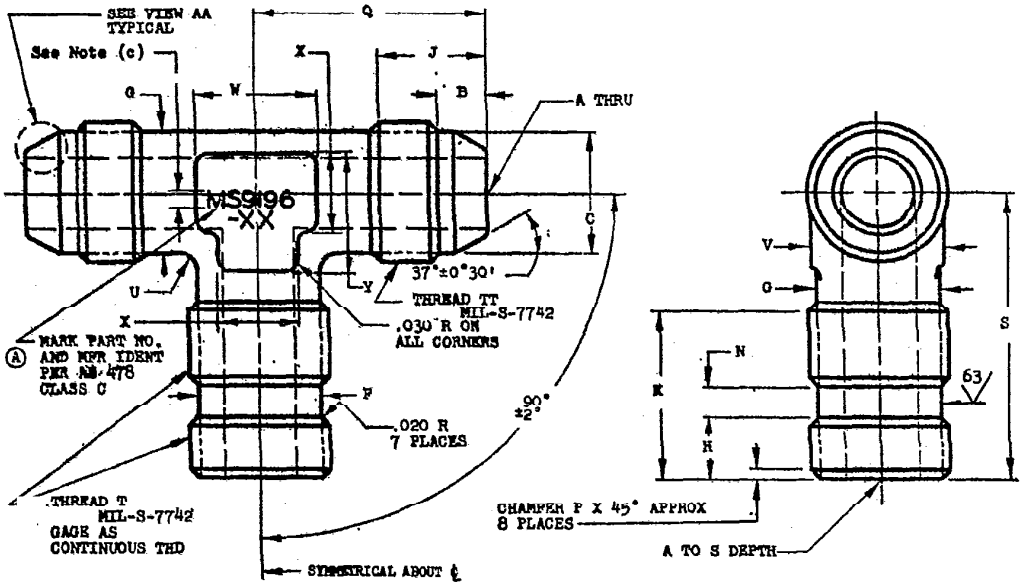
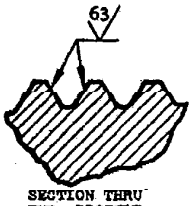
MS9196(ASG)

FED.SUP CLASS.
4730







SECTION THRU THD PROFILE

(a) DIAMETER F SHALL BE FREE OF THREAD MARKS.
(b) DIAMETER F SHALL BE CONCENTRIC WITH PD OF THREAD WITHIN .0025 FIR.
(c) .020-.040 FOR -02, -03, AND -04 SIZES; .040-.060 FOR -05 THRU -16 SIZES; .090-.150 FOR -18 AND LARGER SIZES.
(d) ALL DIAMETERS SHALL BE CONCENTRIC WITHIN .010 FIR. UNLESS OTHERWISE SPECIFIED.
Ⓐ (e) PARTING LINE MISMATCH .015 MAX.
Ⓐ (f) E MIN WALL THICKNESS BETWEEN FORGED SURFACE AND HOLE A.

THIS STANDARD WAS DEVELOPED COOPERATIVELY WITH THE ENGINE AND PROPELLER UTILITY PARTS COMMITTEE OF THE SAE.

APPROVED 11 Apr 60 REVISED Ⓐ 11 May 62

CUSTODIAN	MILITARY STANDARD	MS9196(ASG)
USAF - AFSC Navy - BuWeps	TEE, TUBE - AMS 5646, BOSS	SHEET 1 OF 2
PROCUREMENT SPECIFICATION NONE		

NOTICE: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder, or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

MS FORM 233

NOTICE: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

DD FORM 672-4

PROCUREMENT SPECIFICATION NONE

CUSTODIANS Navy - Bureps NAF

OTHER INT. A - N - AF -

SUPERSEDES:

MILITARY STANDARD

TEE, TUBE - AMS 5646, BOSS

THIS STANDARD HAS DEVELOPED COOPERATIVELY WITH THE ENGINE AND PROPELLER UTILITY PARTS COMMITTEE OF THE SAE

MS9196 (ASG)

MATERIAL: CORROSION RESISTANT STEEL AMS 5646, FORGING.
CLEANING: FINISHED PARTS SHALL BE DEGREASED AND IMMERSED FOR NOT LESS THAN 20 MINUTES IN A SOLUTION OF 1 VOLUME OF NITRIC ACID (SP GR 1.42) AND 9 VOLUMES OF WATER AT ROOM TEMPERATURE.
SURFACE ROUGHNESS: AS 291. UNLESS OTHERWISE SPECIFIED MACHINED SURFACES TO BE 125 MICROINCHES.

PARTS SUBJECT TO FLUROESCENT PENETRANT INSPECTION PER AMS 2645.
BREAK SHARP EDGES .003-.015 UNLESS OTHERWISE SPECIFIED.
DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED: TOLERANCES; LINEAR DIMENSIONS ±.015; ANGULAR DIMENSIONS ±5°. DIMENSIONS ARE TO SHARP CORNERS UNLESS OTHERWISE SPECIFIED.
DO NOT USE UNASSIGNED PART NUMBERS.

PART NO.		NOM TUBE OD	THREAD T	THREAD TT SIZE	THREAD TT MAJOR DIA	THREAD TT PD	THREAD TT MINOR DIA MAX	A DIA	B +.015 -.000	C DIA +.000 -.010	D DIA ±.003	F DIA +.002 -.003 (a)(b)
MS9196-02		.125	.3125-24UNF-3A	.3125-24NS	.3023- .3095	.2797- .2824	.2584	.058- .065	.144	.245	.132	.250
MS9196-03		.188	.375-24UNF-3A	.375-24NS	.3648- .3720	.3420- .3449	.3209	.121- .128	.144	.307	.195	.312
MS9196-04		.250	.4375-20UNF-3A	.4375-20NS	.4264- .4345	.3989- .4020	.3732	.168- .175	.160	.359	.242	.364
MS9196-05		.312	.500 -20UNF-3A	.500-20NS	.4889- .4970	.4613- .4645	.4357	.230- .237	.160	.421	.304	.426
MS9196-06		.375	.5625-18UNF-3A	.5625-18NS	.5508- .5595	.5200- .5234	.4913	.293- .301	.165	.476	.368	.461
MS9196-07		.438	.625 -18UNF-3A	.625-18NS	.6133- .6220	.5824- .5859	.5538	.355- .363	.165	.539	.430	.544
MS9196-08		.500	.750 -16UNF-3A	.750-16NS	.7376- .7470	.7026- .7064	.6703	.387- .395	.229	.654	.462	.660
MS9196-09		.562	.8125-16UN-3A	.8125-16NS	.8001- .8095	.7653- .7689	.7328	.434- .442	.229	.716	.509	.722
MS9196-10		.625	.875 -14UNF-3A	.875-14NS	.8617- .8720	.8215- .8256	.7844	.480- .488	.255	.767	.555	.773
MS9196-11		.688	1.000 -12UNF-3A	1.000-12NS	.9856- .9970	.9385- .9429	.8948	.542- .552	.304	.875	.619	.882
MS9196-12		.750	1.0625-12UN-3A	1.0625-12NS	1.0481-1.0595	1.0012-1.0054	.9573	.604- .614	.304	.938	.681	.945
MS9196-14		.875	1.1875-12UN-3A	1.1875-12NS	1.1731-1.1845	1.1261-1.1304	1.0823	.729- .739	.304	1.062	.806	1.070
MS9196-16		1.000	1.3125-12UN-3A	1.3125-12NS	1.2981-1.3095	1.2511-1.2554	1.2073	.839- .851	.312	1.188	.918	1.195
MS9196-18		1.125	1.500 -12UNF-3A	1.500-12NS	1.4856-1.4970	1.4381-1.4429	1.3948	.948- .960	.312	1.375	1.027	1.382
MS9196-20		1.250	1.625-12UN-3A	1.625-12NS	1.6106-1.6220	1.5635-1.5679	1.5198	1.073-1.086	.363	1.500	1.153	1.507
MS9196-24		1.500	1.875 -12UN-3A	1.875-12NS	1.8606-1.8720	1.8134-1.8179	1.7698	1.307-1.320	.374	1.750	1.337	1.756
MS9196-28		1.750	2.250 -12UN-3A	2.250-12NS	2.2356-2.2470	2.1884-2.1929	2.1448	1.542-1.557	.447	2.125	1.632	2.131
MS9196-32		2.000	2.500 -12UN-3A	2.500-12NS	2.4856-2.4970	2.4429-2.4383	2.3948	1.776-1.791	.457	2.375	1.836	2.381

PART NO.	G DIA	H ±.010	J ±.010	K ±.010	M MIN	N +.010 -.000	P	Q ±.010	S ±.010	U RADIUS	V	W	X	Y	APPROX WEIGHT LBS/EA
MS9196-02	.240	.208	.317	.682	.030	.125	.020-.050	.707	1.000	.062	.250	.400	.200	.300	.033
MS9196-03	.300	.208	.346	.682	.030	.131	.020-.050	.764	1.000	.062	.312	.400	.220	.310	.047
MS9196-04	.350	.250	.398	.748	.030	.140	.030-.060	.826	1.115	.062	.375	.500	.260	.360	.066
MS9196-05	.415	.250	.398	.748	.030	.140	.030-.060	.889	1.140	.062	.438	.580	.300	.420	.085
MS9196-06	.470	.278	.398	.813	.030	.156	.040-.070	.998	1.270	.094	.500	.650	.330	.490	.108
MS9196-07	.535	.278	.398	.813	.030	.172	.040-.070	.998	1.305	.094	.562	.650	.330	.490	.124
MS9196-08	.650	.312	.489	.903	.030	.187	.040-.070	1.195	1.460	.094	.688	.850	.430	.640	.239
MS9196-09	.710	.312	.489	.903	.030	.203	.040-.070	1.195	1.490	.094	.750	.880	.440	.660	.272
MS9196-10	.765	.357	.585	1.018	.030	.219	.050-.080	1.411	1.680	.125	.812	1.000	.500	.750	.361
MS9196-11	.870	.417	.663	1.122	.030	.234	.050-.080	1.614	1.855	.125	.938	1.000	.500	.750	.528
MS9196-12	.935	.417	.663	1.122	.030	.234	.050-.080	1.614	1.885	.125	1.000	1.000	.500	.750	.569
MS9196-14	1.055	.417	.710	1.122	.030	.234	.050-.080	1.768	1.945	.125	1.125	1.000	.500	.750	.691
MS9196-16	1.185	.417	.720	1.122	.030	.234	.050-.080	1.778	2.010	.125	1.250	1.000	.500	.750	.811
MS9196-18	1.365	.417	.767	1.122	.030	.234	.050-.080	2.027	2.100	.125	1.438	1.200	.600	.900	1.207
MS9196-20	1.495	.417	.767	1.122	.030	.234	.050-.080	2.027	2.165	.125	1.625	1.200	.600	.900	1.347
MS9196-24	1.745	.417	.889	1.122	.030	.234	.050-.080	2.293	2.290	.125	1.812	1.200	.600	.900	1.780
MS9196-28	2.120	.417	1.017	1.205	.044	.234	.050-.080	2.777	2.625	.188	2.188	1.320	.660	.990	3.249
MS9196-32	2.370	.417	1.142	1.320	.044	.234	.050-.080	3.027	2.975	.250	2.438	1.500	.750	1.125	4.166

FED. SUP CLASS. 4730

SHEET 2 OF 2

MS9196 (ASG)

APPROVED REVISED