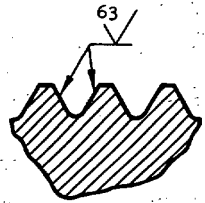
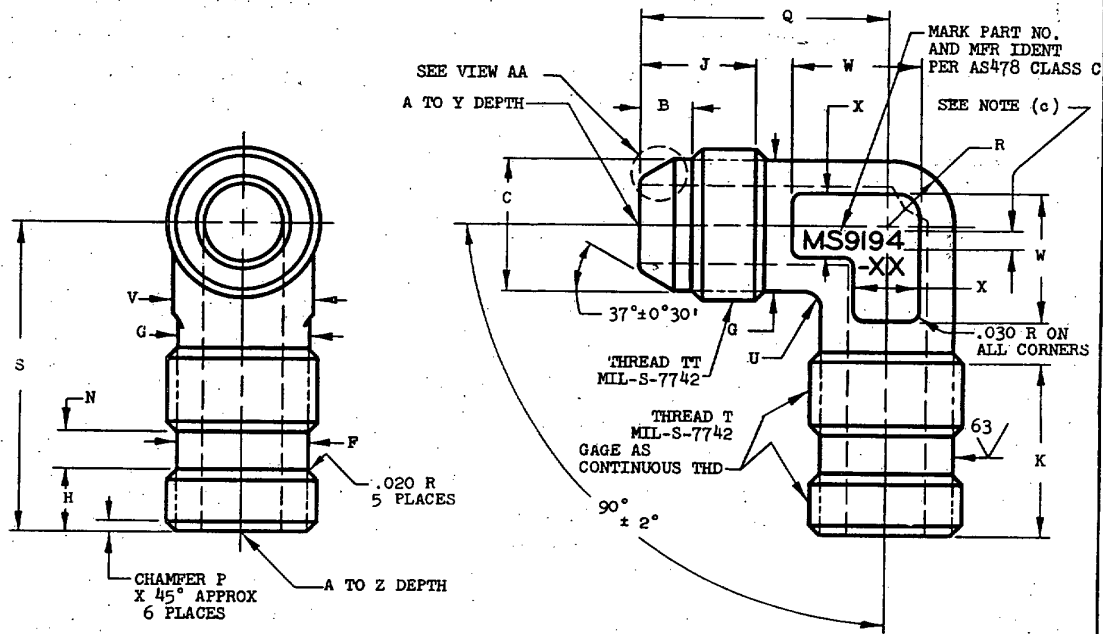
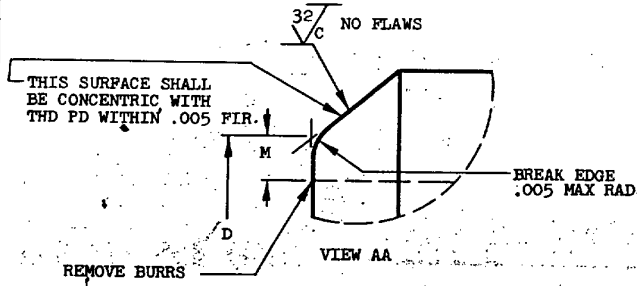


**MS9194(ASG)**

FED. SUP CLASS  
4730



SECTION THRU THD PROFILE

Review activities:  
Navy - AS  
USAF - 69, 11

This military standard is approved by the Department of the Air Force and the Naval Air Systems Command and is mandatory for use by these activities. All other military activities are required to employ this standard where suitable.

- (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, THRU -.04 SIZE; .040-.060 FOR -.05 THRU -.16 SIZE; .090-.150 FOR .16 AND LARGER SIZES.
  - (d) ALL DIAMETERS SHALL BE CONCENTRIC WITHIN .010 FIR, UNLESS OTHERWISE SPECIFIED.
  - (e) PARTING LINE MISMATCH .015 MAX.
  - (f) MIN WALL THICKNESS BETWEEN FORGED SURFACE AND HOLE A.
- (R) FOR CHANGES SEE SHEET 2  
THIS STANDARD WAS DEVELOPED COOPERATIVELY WITH THE ENGINE AND PROPELLER UTILITY PARTS COMMITTEE OF THE SAE.

CUSTODIAN USAF - 69 Navy - AS	<b>MILITARY STANDARD</b>		<b>MS9194(ASG)</b>
	PROCUREMENT SPECIFICATION NONE	ELBOW, TUBE - AMS 5646, BOSS, 90°	

NS FORM 233  
1 NOV 60

81 28170

APPROVED 11 Apr 60  
REVISED (A) 11 May 62 (B) 27 Jul 67

This military standard is approved by the Department of the Air Force and the Naval Air Systems Command and is mandatory for use by these activities. All other military activities are required to employ this standard where suitable.

Review activities:  
 Navy - AS  
 USAF - 69, 11

# MS9194 (ASG)

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

PARTS SUBJECT TO FLUORESCENT PENETRANT INSPECTION PER AMS 2645.  
 BREAK SHARP EDGES .003-.015 UNLESS OTHERWISE SPECIFIED.  
 DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED: TOLERANCES; LINEAR DIMENSIONS ±.015.  
 DIMENSIONS ARE TO SHARP CORNERS UNLESS OTHERWISE SPECIFIED.  
 DO NOT USE UNASSIGNED PART NUMBERS. AS & ANG ARE SAE PUBLICATIONS.

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

CUSTODIANS  
 Navy - AS  
 USAF - 69

OTHER INT.  
 MILITARY STANDARD

MILITARY STANDARD  
 ELBOW, TUBE - AMS 5646, BOSS, 90°

MS9194 (ASG)  
 SHEET 2 OF

PROCUREMENT SPECIFICATION  
 NONE

SUPERSEDES:

SHEET 2 OF

PART NO.	E	NOM TUBE OD	THREAD T	SIZE	THREAD TT			MINOR DIA MAX	A DIA	B DIA +.015 -.000	C DIA +.060 -.010	D DIA ±.003	F DIA +.002 (a)(b)	G DIA
					MAJOR DIA	PD	FD							
MS9194-02	.040	.125	3125-24UNF-3A	3125-24NS	3023-3095	2797-2824	2584	.058-.065	.144	.245	.132	.250	.240	
MS9194-03	.040	.188	375-24UNF-3A	375-24NS	3648-3720	3420-3449	3209	.121-.128	.144	.307	.195	.312	.300	
MS9194-04	.040	.250	4375-20UNF-3A	4375-20NS	4264-4345	3989-4020	3732	.168-.175	.160	.359	.242	.364	.350	
MS9194-05	.050	.312	500-20UNF-3A	500-20NS	4889-4970	4613-4645	4357	.230-.237	.160	.421	.304	.426	.415	
MS9194-06	.050	.375	5625-18UNF-3A	5625-18NS	5508-5595	5200-5234	4913	.293-.301	.165	.476	.368	.481	.470	
MS9194-07	.060	.438	625-18UNF-3A	625-18NS	6133-6220	5824-5859	5538	.355-.363	.165	.539	.430	.544	.535	
MS9194-08	.080	.500	750-16UNF-3A	750-16NS	7376-7470	7026-7064	6703	.387-.395	.229	.654	.462	.660	.650	
MS9194-09	.080	.562	8125-16UNF-3A	8125-16NS	8001-8095	7689-7726	7328	.480-.488	.229	.716	.509	.722	.710	
MS9194-10	.090	.625	875-14UNF-3A	875-14NS	8617-8720	8215-8256	7844	.542-.552	.255	.767	.555	.773	.765	
MS9194-11	.110	.688	1000-12UNF-3A	1000-12NS	9856-9970	9385-9429	8948	.604-.614	.304	.875	.619	.882	.870	
MS9194-12	.110	.750	10825-12UNF-3A	10825-12NS	10481-10595	10012-10054	9573	.729-.739	.304	.938	.661	.945	.935	
MS9194-14	.110	.875	11875-12UNF-3A	11875-12NS	11731-11845	11261-11304	10863	.839-.851	.312	1.062	.806	1.070	1.055	
MS9194-16	.150	1.000	13125-12UNF-3A	13125-12NS	12981-13095	12511-12554	12073	.973-.986	.312	1.188	.918	1.195	1.185	
MS9194-18	.150	1.125	1500-12UNF-3A	1500-12NS	14856-14970	14381-14429	13948	1.073-1.086	.312	1.375	1.027	1.382	1.362	
MS9194-20	.170	1.250	1625-12UNF-3A	1625-12NS	16106-16220	15631-15679	15218	1.307-1.320	.312	1.560	1.153	1.567	1.547	
MS9194-24	.240	1.500	1875-12UNF-3A	1875-12NS	18606-18720	18131-18179	17718	1.542-1.557	.312	1.750	1.387	1.757	1.745	
MS9194-28	.240	1.750	2250-12UNF-3A	2250-12NS	22356-22470	21881-21929	21448	1.776-1.791	.457	2.125	1.652	2.131	2.120	
MS9194-32	.250	2.000	2500-12UNF-3A	2500-12NS	24856-24970	24429-24483	23948			2.375	1.886	2.381	2.370	

PART NO.	H	J	K	M	N	P	Q	R	S	U	V	W	X	Y	Z	APPROX WEIGHT LBS/EA
MS9194-02	.208	.317	.682	.030	.135	.020-.050	.707	.120	1.000	.062	.250	.300	.200	.722	1.018	.025
MS9194-03	.208	.346	.682	.030	.131	.020-.050	.744	.150	1.000	.062	.312	.310	.200	.795	1.033	.036
MS9194-04	.250	.398	.748	.030	.140	.030-.060	.886	.175	1.115	.062	.375	.380	.260	.862	1.146	.050
MS9194-05	.250	.398	.748	.030	.140	.030-.060	.889	.207	1.140	.062	.438	.440	.300	.907	1.171	.065
MS9194-06	.278	.398	.813	.030	.156	.040-.070	.998	.235	1.270	.094	.500	.490	.300	1.032	1.301	.083
MS9194-07	.278	.398	.813	.030	.172	.040-.070	.998	.267	1.305	.094	.562	.500	.330	1.032	1.336	.097
MS9194-08	.312	.489	.903	.030	.187	.040-.070	1.195	.325	1.460	.094	.688	.640	.430	1.257	1.523	.186
MS9194-09	.312	.489	.903	.030	.203	.040-.070	1.195	.355	1.490	.094	.750	.660	.440	1.257	1.523	.215
MS9194-10	.357	.585	1.018	.030	.219	.050-.080	1.411	.382	1.680	.094	.812	.750	.500	1.473	1.743	.280
MS9194-11	.417	.663	1.122	.030	.234	.050-.080	1.614	.435	1.855	.094	.938	.750	.500	1.677	1.918	.408
MS9194-12	.417	.663	1.122	.030	.234	.050-.080	1.614	.467	1.885	.094	1.000	.750	.500	1.677	1.948	.445
MS9194-14	.417	.710	1.122	.030	.234	.050-.080	1.768	.527	1.945	.125	1.125	.750	.500	1.893	2.070	.538
MS9194-16	.417	.720	1.122	.030	.234	.050-.080	1.778	.592	2.010	.125	1.250	.750	.500	1.903	2.135	.644
MS9194-18	.417	.767	1.122	.030	.234	.050-.080	2.027	.682	2.150	.125	1.438	.900	.600	2.152	2.225	.954
MS9194-20	.417	.767	1.122	.030	.234	.050-.080	2.027	.750	2.165	.125	1.625	.900	.600	2.152	2.290	1.087
MS9194-24	.417	.889	1.122	.030	.234	.050-.080	2.293	.872	2.280	.125	1.812	.900	.600	2.418	2.415	1.436
MS9194-28	.417	1.017	1.122	.044	.234	.050-.080	2.777	1.082	2.625	.188	2.188	.990	.660	2.902	2.750	2.612
MS9194-32	.417	1.142	1.320	.044	.234	.050-.080	3.027	1.188	2.975	.250	2.438	1.125	.750	3.152	3.100	3.382

APPROVED 11 APR 60 REVISED 11 MAY 64 (B) FOR CHANGES SEE SHEET 2.

FED. SUP CLASS.  
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