

**MS9680 (ASG)**

6 SCALLOPS EQUALLY SPACED AND LOCATED WITHIN .010 EITHER SIDE OF TRUE POSITION

MARK PART NUMBER AND MANUFACTURERS IDENT PER AS 478 CLASS A

CHAMFER 25°-32° TO .250 DIA

15° BASIC POSITION OF SCALLOPS RELATIVE TO DOUBLE HEXAGON

CHAMFER .031 x 45° APPROX

THIS SURFACE MUST BE SQUARE WITH SHANK WITHIN .003 FIR

SECTION B-B

SECTION THRU THREAD PROFILE

PART NUMBER	L	K	APPROX WEIGHT LB/100	PART NUMBER	L	K	APPROX WEIGHT LB/100	PART NUMBER	L	K	APPROX WEIGHT LB/100
MS9680-01	.312	.072-.092	.89	MS9680-22	1.500	.810-.870	1.67	MS9680-43	3.875	3.185-3.245	3.19
MS9680-04	.375	.072-.092	.95	MS9680-23	1.562	.872-.932	1.71				
MS9680-05	.438	.072-.092	.99	MS9680-24	1.625	.935-.995	1.75				
MS9680-06	.500	.072-.092	1.03	MS9680-25	1.688	.998-1.058	1.79				
MS9680-07	.562	.072-.092	1.07	MS9680-26	1.750	1.060-1.120	1.83				
MS9680-08	.625	.072-.092	1.11	MS9680-27	1.875	1.185-1.245	1.91				
MS9680-09	.688	.072-.092	1.15	MS9680-28	2.000	1.310-1.370	1.99				
MS9680-10	.750	.072-.120	1.19	MS9680-29	2.125	1.435-1.495	2.07				
MS9680-11	.812	.122-.182	1.23	MS9680-30	2.250	1.560-1.620	2.15				
MS9680-12	.875	.185-.245	1.27	MS9680-31	2.375	1.685-1.745	2.23				
MS9680-13	.938	.248-.308	1.31	MS9680-32	2.500	1.810-1.870	2.31				
MS9680-14	1.000	.310-.370	1.35	MS9680-33	2.625	1.935-1.995	2.39				
MS9680-15	1.062	.372-.432	1.39	MS9680-34	2.750	2.060-2.120	2.47				
MS9680-16	1.125	.435-.495	1.43	MS9680-35	2.875	2.185-2.245	2.55				
MS9680-17	1.188	.498-.558	1.47	MS9680-36	3.000	2.310-2.370	2.63				
MS9680-18	1.250	.560-.620	1.51	MS9680-37	3.125	2.435-2.495	2.71				
MS9680-19	1.312	.622-.682	1.55	MS9680-38	3.250	2.560-2.620	2.79				
MS9680-20	1.375	.685-.745	1.59	MS9680-39	3.375	2.685-2.745	2.87				
MS9680-21	1.438	.748-.808	1.63	MS9680-40	3.500	2.810-2.870	2.95				
				MS9680-41	3.625	2.935-2.995	3.03				
				MS9680-42	3.750	3.060-3.120	3.11				

- SHANK SHALL BE STRAIGHT WITHIN .003 FIR PER INCH OF BOLT LENGTH.
- THE CONCENTRICITY OF THREAD PD IN RELATION TO THE SHANK SHALL BE WITHIN .006 FIR.
- THE CONCENTRICITY OF THE SHANK IN RELATION TO THE WASHER FACE DIAMETER AND DOUBLE HEXAGON OD SHALL BE WITHIN .006 FIR.
- INCOMPLETE THREADS NOT TO ENTER FILLET.
- MATERIAL: STEEL AMS 6322.
- HARDNESS: ROCKWELL C26-32.
- FINISH: CADMIUM PLATE AMS 2400. DIMENSIONS SPECIFIED ARE AFTER PLATING.
- MAGNETIC PARTICLE INSPECTION PER AMS 2640 AFTER PLATING.
- MANUFACTURING SPECIFICATION: AMS 7452 EXCEPT HEAD MUST BE UPSET.
- HEAD TO SHANK FILLET SHALL BE COLD ROLLED AFTER HEAT TREATMENT TO REMOVE ALL VISUAL EVIDENCE OF GRINDING OR TOOL MARKS.
- SURFACE ROUGHNESS: AS 291, UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 125 MICROINCHES EXCEPT UPSET HEAD.
- BREAK SHARP EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.
- DIMENSIONS IN INCHES, UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS  $\pm .010$ , ANGULAR DIMENSIONS  $\pm 5^\circ$ .
- DO NOT USE UNASSIGNED PART NUMBERS.

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

REINSTATED AFTER 27 JUN 84

P.A.	AS	TITLE	MILITARY STANDARD
Other Cust	99	BOLT, MACHINE - STEEL AMS 6322, CADMIUM PLATE, DOUBLE HEXAGON EXTENDED WASHER HEAD, CUP WASHER LOCKED, .190-32 UNJP-3A	MS9680 (ASG)
PROCUREMENT SPECIFICATION	SUPERSEDES:		PAGE 1 OF 1

This standard has been approved by the Department of the Air Force and the Department of the Navy and is mandatory for use by their activity. All other military activities are required to employ this standard where suitable.