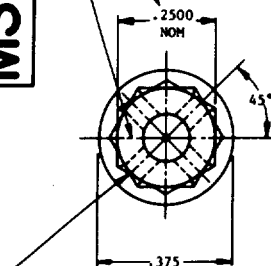
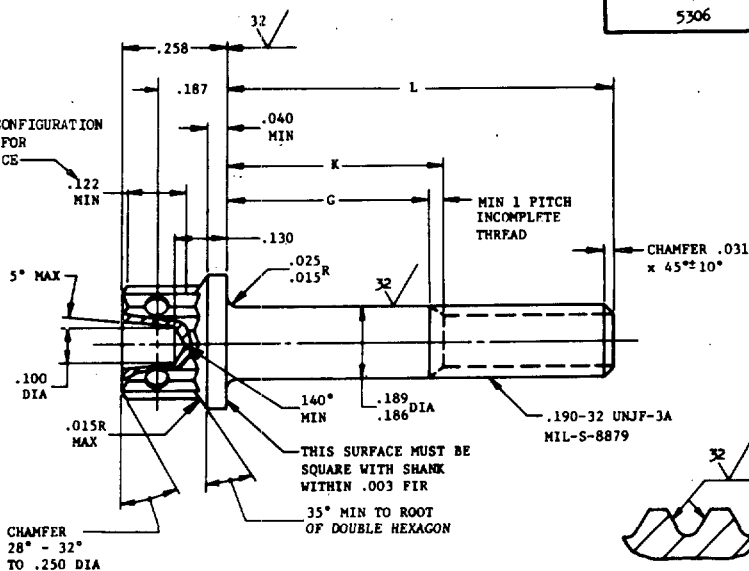
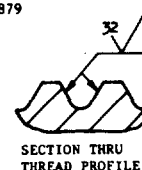


FED. SUP CLASS  
5306**MS9941**MARK PART NUMBER  
AND MANUFACTURER'S IDENT  
PER AS 478 CLASS AWRENCHING CONFIGURATION  
PER AS 870 FOR  
THIS DISTANCE.042-.052 DIA 4 HOLES  
EQUALLY SPACED AS SHOWN  
CSK 90° to .060-.070 DIACHAMFER  
28° - 32°  
TO .250 DIATHIS SURFACE MUST BE  
SQUARE WITH SHANK  
WITHIN .003 FIR35° MIN TO ROOT  
OF DOUBLE HEXAGONSECTION THRU  
THREAD PROFILE

User activities:  
Navy - MC, CG

Review activities:  
Air Force - B2  
Navy - AS

This military standard is approved by the Department of the Air Force  
and the Bureau of Naval Weapons and is mandatory for use by these  
activities. All other military activities are required to comply  
with this standard where suitable.

PART NO.	L	G MIN	K MAX	APPROX WEIGHT LB/100
MS9941-11	.812	.060	.182	.98
MS9941-12	.875	.123	.245	1.03
MS9941-13	.938	.186	.308	1.08
MS9941-14	1.000	.248	.370	1.13
MS9941-15	1.062	.310	.432	1.18
MS9941-16	1.125	.373	.495	1.22
MS9941-17	1.188	.436	.558	1.27
MS9941-18	1.250	.498	.620	1.32
MS9941-19	1.312	.560	.682	1.37
MS9941-20	1.375	.623	.745	1.42
MS9941-21	1.438	.686	.808	1.47
MS9941-22	1.500	.748	.870	1.52
MS9941-23	1.562	.810	.932	1.57
MS9941-24	1.625	.873	.995	1.61
MS9941-25	1.688	.936	1.058	1.66
MS9941-26	1.750	.998	1.120	1.71

PART NO.	L	G MIN	K MAX	APPROX WEIGHT LB/100
MS9941-27	1.812	1.060	1.182	1.76
MS9941-28	1.875	1.123	1.245	1.81
MS9941-29	1.938	1.186	1.308	1.86
MS9941-30	2.000	1.248	1.370	1.91
MS9941-31	2.125	1.373	1.495	2.01
MS9941-32	2.250	1.498	1.620	2.10
MS9941-33	2.375	1.623	1.745	2.20
MS9941-34	2.500	1.748	1.870	2.30
MS9941-35	2.625	1.873	1.995	2.39
MS9941-36	2.750	1.998	2.120	2.49
MS9941-37	2.875	2.123	2.245	2.59
MS9941-38	3.000	2.248	2.370	2.69
MS9941-39	3.125	2.373	2.495	2.78
MS9941-40	3.250	2.498	2.620	2.88
MS9941-41	3.375	2.623	2.745	2.98
MS9941-42	3.500	2.748	2.870	3.07
MS9941-43	3.625	2.873	2.995	3.17
MS9941-44	3.750	2.998	3.120	3.27

PART NO.	L	G MIN	K MAX	APPROX WEIGHT LB/100
MS9941-45	3.875	3.123	3.245	3.37

1. SHANK SHALL BE STRAIGHT WITHIN .003 TOTAL PER INCH OF BOLT LENGTH.
2. THE CONCENTRICITY OF THREAD PD IN RELATION TO THE SHANK SHALL BE WITHIN .006 FIR.
3. THE CONCENTRICITY OF THE SHANK IN RELATION TO THE WASHER FACE DIAMETER AND DOUBLE HEXAGON OD SHALL BE WITHIN .006 FIR.
4. MATERIAL: STEEL AMS 6322.
5. HARDNESS: ROCKWELL C26-32.
6. FINISH: CADMIUM PLATE AMS 2400. DIMENSIONS SPECIFIED ARE AFTER PLATING.
7. MANUFACTURING SPECIFICATION: AMS 7452 EXCEPT HEAD SHALL BE UPSET.
8. HEAD TO SHANK FILLET SHALL BE COLD WORKED.
9. MAGNETIC PARTICLE INSPECTION PER AMS 2640 AFTER PLATING.
10. SURFACE TEXTURE: USAS B46.1-1962. UNLESS OTHERWISE SPECIFIED, SURFACE TO BE 125 MICROINCHES EXCEPT UPSET HEAD.
11. BREAK SHARP EDGES .003-.015 UNLESS OTHERWISE SPECIFIED.
12. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS  $\pm .010$ , ANGULAR DIMENSIONS  $\pm 5^\circ$ .
13. DO NOT USE UNASSIGNED PART NUMBERS.

AS & AMS ARE SOCIETY OF AUTOMOTIVE ENGINEERS, INC. PUBLICATIONS.  
THIS STANDARD WAS DEVELOPED COOPERATIVELY WITH THE MILITARY SERVICES BY THE SAE AEROSPACE PART STANDARDS DIVISION.

P.A.  
AIR FORCE - 11  
Other Civil  
NAVY - AS

TITLE

BOLT, MACHINE - DOUBLE HEXAGON EXTENDED WASHER  
HEAD, DRILLED, FULL SHANK, STEEL AMS 6322,  
CADMIUM PLATED, .190-32 UNJF-3A

MILITARY STANDARD

**MS 9941**

PROCUREMENT SPECIFICATION  
AMS-7452

SUPERSEDES:

SHEET 1 OF 1

DD FORM 672-1 (Limited coordination)  
ASG use only

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

☆ U. S. GOVERNMENT PRINTING OFFICE: 1971-433-696/4869

APPROVED 30 Dec 70 REVISED