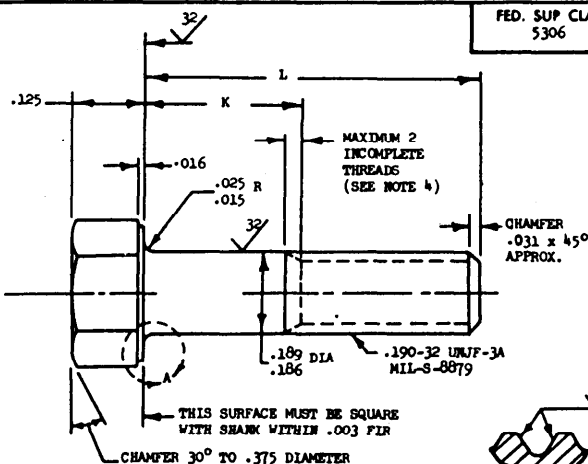
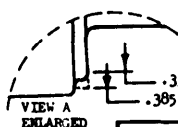
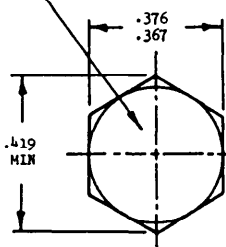


MS9651User activities:
Army - WC, MIReview activities:
USAF - 02
Army - AV

This military standard is approved by the Department of Defense and is mandatory on all activities. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

MARK PART NUMBER AND
MANUFACTURERS IDENTIFICATION
PER AS470 CLASS AFED. SUP CLASS
5306SECTION THRU
THREAD PROFILE

PART NUMBER	L	K	APPROX WEIGHT LB/100	PART NUMBER	L	K	APPROX WEIGHT LB/100
MS9651-11	.812	.122-.182	.62	MS9651-31	2.125	1.435-1.495	1.10
MS9651-12	.875	.185-.245	.64	MS9651-32	2.250	1.560-1.620	1.15
MS9651-13	.938	.248-.308	.67	MS9651-33	2.375	1.685-1.745	1.20
MS9651-14	1.000	.310-.370	.69	MS9651-34	2.500	1.810-1.870	1.24
MS9651-15	1.062	.372-.432	.71	MS9651-35	2.625	1.935-1.995	1.29
MS9651-16	1.125	.435-.495	.73	MS9651-36	2.750	2.060-2.120	1.33
MS9651-17	1.188	.498-.558	.76	MS9651-37	2.875	2.185-2.245	1.37
MS9651-18	1.250	.560-.620	.78	MS9651-38	3.000	2.310-2.370	1.42
MS9651-19	1.312	.622-.682	.80	MS9651-39	3.125	2.435-2.495	1.47
MS9651-20	1.375	.685-.745	.83	MS9651-40	3.250	2.560-2.620	1.51
MS9651-21	1.438	.748-.808	.85	MS9651-41	3.375	2.685-2.745	1.56
MS9651-22	1.500	.810-.870	.87	MS9651-42	3.500	2.810-2.870	1.60
MS9651-23	1.562	.872-.932	.89	MS9651-43	3.625	2.935-2.995	1.65
MS9651-24	1.625	.935-.995	.92	MS9651-44	3.750	3.060-3.120	1.70
MS9651-25	1.688	.998-1.058	.94	MS9651-45	3.875	3.185-3.245	1.74
MS9651-26	1.750	1.060-1.120	.96				
MS9651-27	1.812	1.122-1.182	.99				
MS9651-28	1.875	1.185-1.245	1.01				
MS9651-29	1.938	1.248-1.308	1.03				
MS9651-30	2.000	1.310-1.370	1.05				

- SHANK SHALL BE STRAIGHT WITHIN .003 TOTAL 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 HEXAGON SHALL BE WITHIN .011 FIR.
- INCOMPLETE THREADS NOT TO ENTER FILLET.
- MATERIAL: TITANIUM AMS 4967.
- HARDNESS: ROCKWELL C36-42.
- MANUFACTURING SPECIFICATION: AMS 7461, EXCEPT MATERIAL AS NOTED.
- FLUORESCENT PENETRANT INSPECTION PER AMS 2645.
- SURFACE TEXTURE: USAS B46.1-1962. UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 125 MICROINCHES EXCEPT UPSET HEAD.
- BREAK SHARP EDGES .003-.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.

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. USAF-II	INTERNATIONAL INTEREST	TITLE	MILITARY STANDARD
Other Cust Army-AV Navy-AS	ASCC AIR STD 17/2	BOLT, MACHINE - HEXAGON HEAD, FULL SHANK, TITANIUM AMS 4967, .190-32 UNJF-3A	MS9651
PROCUREMENT SPECIFICATION NONE	SUPERSEDES:		SHEET 1 OF 1

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

APPROVED 4 May 70 REVISED