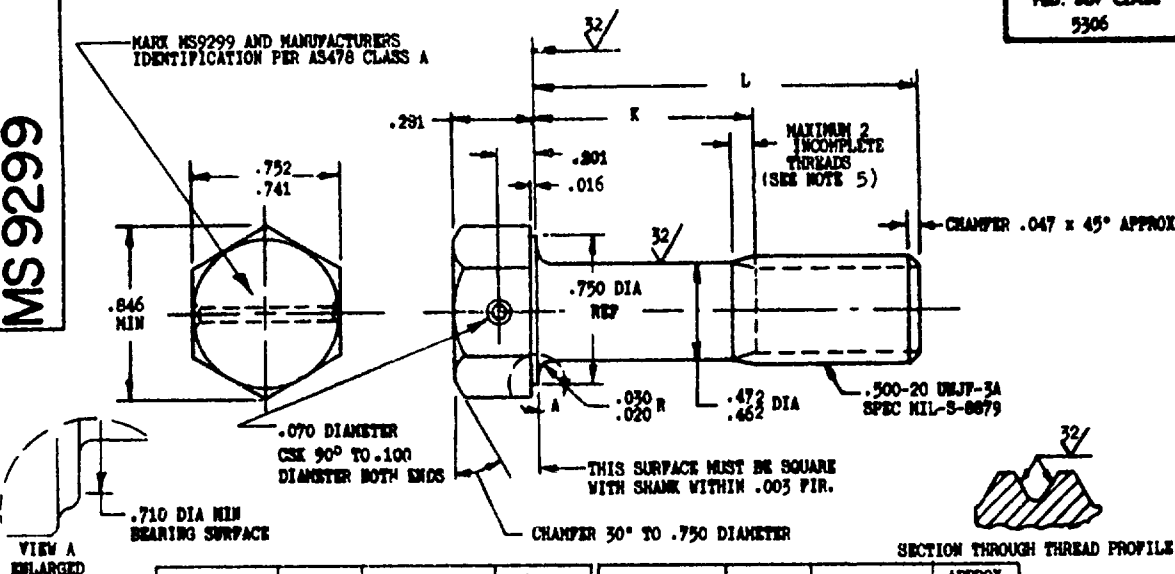


MS 9299

PART NUMBER	L	K	APPROX WEIGHT LB/100	PART NUMBER	L	K	APPROX WEIGHT LB/100
MS9299-04	.812	.105-.125	7.69	MS9299-31	3.250	1.940-2.000	19.47
MS9299-05	.875	.105-.125	7.99	MS9299-32	3.375	2.065-2.125	20.08
MS9299-06	.938	.105-.125	8.29	MS9299-33	3.500	2.190-2.250	20.68
MS9299-07	1.000	.105-.125	8.59	MS9299-34	3.625	2.315-2.375	21.28
MS9299-08	1.062	.105-.125	8.90	MS9299-35	3.750	2.440-2.500	21.89
MS9299-09	1.125	.105-.125	9.20	MS9299-36	3.875	2.565-2.625	22.49
MS9299-10	1.188	.105-.125	9.50	MS9299-37	4.000	2.690-2.750	23.10
MS9299-11	1.250	.105-.125	9.80	MS9299-38	4.125	2.815-2.875	23.70
MS9299-12	1.312	.105-.125	10.11	MS9299-39	4.250	2.940-3.000	24.30
MS9299-13	1.375	.105-.125	10.41	MS9299-40	4.375	3.065-3.125	24.91
MS9299-14	1.438	.128-.188	10.71	MS9299-41	4.500	3.190-3.250	25.51
MS9299-15	1.500	.190-.250	11.01	MS9299-42	4.625	3.315-3.375	26.12
MS9299-16	1.562	.252-.312	11.31	MS9299-43	4.750	3.440-3.500	26.72
MS9299-17	1.625	.315-.375	11.62	MS9299-44	4.875	3.565-3.625	27.33
MS9299-18	1.688	.378-.438	11.92	MS9299-45	5.000	3.690-3.750	27.93
MS9299-19	1.750	.440-.500	12.22	MS9299-46	5.125	3.815-3.875	28.53
MS9299-20	1.875	.565-.625	12.82	MS9299-47	5.250	3.940-4.000	29.14
MS9299-21	2.000	.690-.750	13.43	MS9299-48	5.375	4.065-4.125	29.74
MS9299-22	2.125	.815-.875	14.03	MS9299-49	5.500	4.190-4.250	30.35
MS9299-23	2.250	.940-1.000	14.64	MS9299-50	5.625	4.315-4.375	30.95
MS9299-24	2.375	1.065-1.125	15.24	MS9299-51	5.750	4.440-4.500	31.56
MS9299-25	2.500	1.190-1.250	15.85	MS9299-52	5.875	4.565-4.625	32.16
MS9299-26	2.625	1.315-1.375	16.45	MS9299-53	6.000	4.690-4.750	32.76
MS9299-27	2.750	1.440-1.500	17.05				
MS9299-28	2.875	1.565-1.625	17.66				
MS9299-29	3.000	1.690-1.750	18.26				
MS9299-30	3.125	1.815-1.875	18.87				

- HEAD TO SHANK FILLET SHALL BE COLD ROLLED AFTER HEAT TREATMENT TO REMOVE ALL VISUAL EVIDENCE OF GRINDING OR TOOL MARKS.
- SHANK SHALL BE STRAIGHT WITHIN .002 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 .023 FIR.
- INCOMPLETE THREADS NOT TO ENTER FILLET.
- MATERIAL: STEEL AMS 6322.
- HARDNESS: ROCKWELL C28-32.
- FINISH: BLACK OXIDE TREATMENT AMS 2485.
- MANUFACTURING SPECIFICATION: AMS 7452 EXCEPT HEAD MUST BE UPSET.
- MAGNETIC PARTICLE INSPECTION PFR AMS 2640.
- SURFACE ROUGHNESS: AS 291. UNLESS OTHERWISE SPECIFIED SURFACES TO BE 125 MICROINCHES EXCEPT HEXAGON.
- BREAK SHARP EDGES .003-.01. UNLESS OTHERWISE SPECIFIED.
- DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS $\pm .010$, ANGULAR DIMENSIONS $\pm ^\circ$.
- DO NOT USE UNASSIGNED PART NUMBERS

(A) INACTIVE FOR DESIGN AFTER 26 OCTOBER 1972.
NO SUPERSEDING STANDARD.

AS & AMS ARE SOCIETY OF AUTOMOTIVE ENGINEERS, INC. PUBLICATIONS.
 THIS STANDARD WAS DEVELOPED COOPERATIVELY WITH THE ENGINE AND PROPELLER UTILITY PARTS COMMITTEE OF THE SAE.

P.A. USAF - 11	TITLE	MILITARY STANDARD
Other Cost	BOLT, MACHINE-STEEL AMS 6322, BLACK OXIDE, DRILLED, 1 HOLE, HEXAGON HEAD, .500-20 UNJF-3A	MS 9299
Navy - AS		
PROCUREMENT SPECIFICATION	SUPERSEDES:	SHEET 1 OF 1
NOTE		

DD FORM 672-1 E-25-144
 (Limited circulation)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

Revises activities.
 USAF - 11
 NAVY - AS

This standard has been approved by the Department of the Air Force (11) and the Department of the Navy and is mandatory for use by that activity. All other military activities are required to comply with standard where suitable.

APPROVED 24 Sept 72 REVISED 26 Oct 72