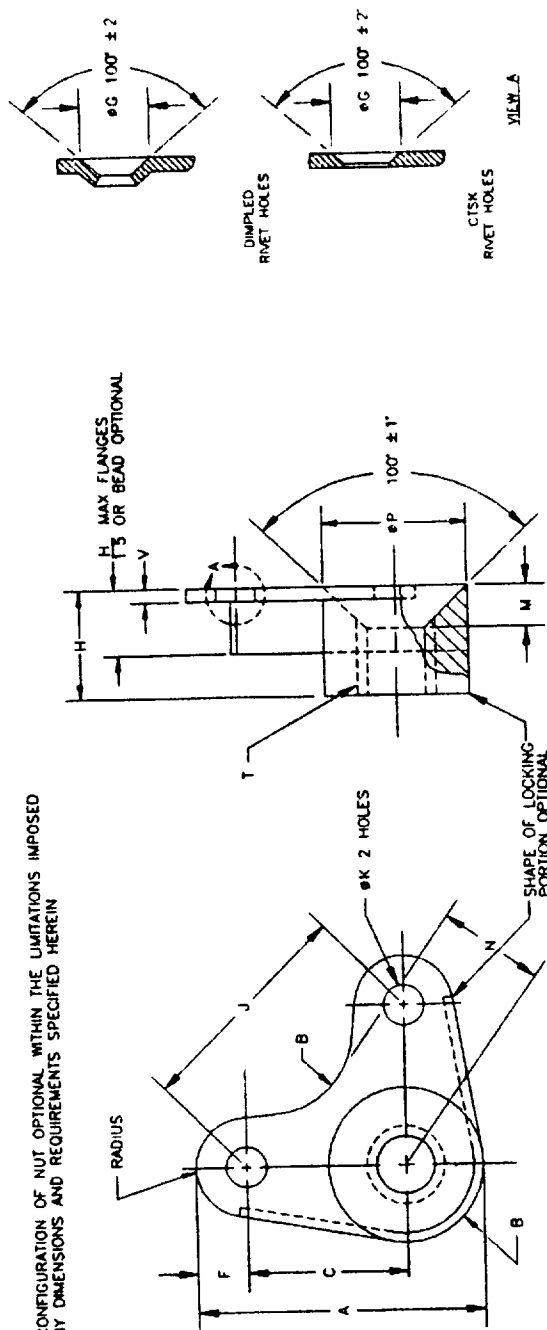


THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODDS SPECIFIED IN THE SOLICITATION MIL-N-25027

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE

CONFIGURATION OF NUT OPTIONAL WITHIN THE LIMITATIONS IMPOSED BY DIMENSIONS AND REQUIREMENTS SPECIFIED HEREIN



(G) DENOTES CHANGE(S)

INCH-POUND

PREPARING ACTIVITY DLA-IS  
CUSTODIANS ARMY- AV NAVY- AS  
AIR FORCE- II DLA-  
REVIEW  
USER CR, MI  
PROJECT NUMBER 5310-1948

DISTRIBUTION STATEMENT

A. Approved for public release distribution is unlimited

# MILITARY SPECIFICATION SHEET

TITLE  
NUT, SELF-LOCKING PLATE, CORNER,  
100° CSK, LOW HEIGHT, ALLOY STEEL,  
125 KSI Fm, 450°F

SPECIFICATION SHEET NUMBER

MS21057

1 FEB 94  
REV G

SUPERSEDING  
MS21057 F 30 SEPT 87 (SEE NOTE 5)

AMSC- N/A FSC 5310

Page 1 of 2

TABLE I DASH NUMBERS AND DIMENSIONS

TABLE I DASH NUMBERS AND DIMENSIONS																		
DASH NUMBERS			T THREAD SIZES	A MAX	B		C MIN ± .005	F	G MIN ± .010	H MAX	J MAX ± .002	K REF ± .005	M MAX	N MAX ± .005	V MAX	AXIAL STRENGTH LBS/MIN	WEIGHT LBS/100	
450° NON-DRY FILM LUBRICATED		450° DRY FILM LUBRICATED																
PLAIN HOLES	CTS OR DIMPLED HOLES																	
-08	-08K	L08	164-32 UNJ-C-38	700	211	180	344	100	200	272	486	098	084	270	385	047	1 720	39
-3	-3K	L3	190-32 UNJ-F-38	716	227	203	344	100	200	281	486	098	093	270	411	047	2 460	41
-4	-4K	L4	250-28 UNJ-F-38	955	310	267	500	100	200	340	707	098	121	383	540	055	4 580	88
-5	-5K	L5	3125-24 UNJ-F-38	1 044	383	340	500	125	230	422	707	130	156	383	686	065	7,390	117

1/ MINIMUM "H" NOT SPECIFIED LIMITED ONLY BY STRENGTH REQUIREMENTS OF THE SPECIFICATION  
2/ CENTER OF THE TAPPED HOLE SHALL NOT DEVIATE IN ANY DIRECTION FROM THE CENTER OF THE PLATE NOT AS DETERMINED BY THE RIVET HOLES BY MORE THAN .005  
3/ DIMPLED RIVET HOLE TOLERANCE FOR "K" IS + .015 - .000 AFTER FORMING

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODISS SPECIFIED IN THE SOLICITATION MIL-N-25027

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE

Form Approved  
OMB No. 0704-0188

#### REQUIREMENTS

1. MATERIAL CARBON STEEL COMPOSITIONS 1035 (UNS G10350) 1040 (UNS G10400) AND 1050 (UNS G10500) IN ACCORDANCE WITH ASTM A827 OR QQ-S-700 1042 (UNS G10420) IN ACCORDANCE WITH ASTM A29 ALLOY STEEL, GRADES 4130 (UNS G41300) 4340 (UNS G43400) AND 8740 (UNS G87400) IN ACCORDANCE WITH ASTM A29
2. FINISH CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416 TYPE II CLASS 2 FOR DRY FILM LUBRICATED NUTS THE TYPE AND CLASS ARE OPTIONAL IF THE NUTS MEET THE SALT SPRAY REQUIREMENTS OF QQ-P-416 TYPE II
3. DIMENSIONING AND TOLERANCING DIMENSIONING AND TOLERANCING SHALL BE IN ACCORDANCE WITH ANSI Y14.5M
4. HARDNESS 49HRC MAX
5. THREADS THREADS BEFORE LUBRICATION IN ACCORDANCE WITH MIL-S-8879
6. SURFACE TEXTURE SURFACE TEXTURE, UNLESS OTHERWISE SPECIFIED SHALL NOT EXCEED 125 MICROINCHES IN ACCORDANCE WITH ANSI/ASME B46.1
7. LUBRICANT DRY FILM LUBRICANT APPROVED IN ACCORDANCE MIL-N-25027 NON-DRY FILM LUBRICANTS SHALL BE SOLUBLE IN THE CLEANER SPECIFIED IN MIL-S-8802
8. EDGES BREAK ALL SHARP EDGES AND REMOVE ALL BURRS
9. COUNTERBORE ON SIZE 164 AND LARGER THREAD RELIEF SHALL BE .062 MINIMUM
10. PART NUMBER THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE I

EXAMPLE MS21057L4K  
                     └── DASH NUMBER  
                     └── BASIC MS NUMBER

MS21057L4K INDICATES NUT, SELF-LOCKING, PLATE, CORNER, 100° CSK LOW HEIGHT ALLOY STEEL 125 KSI F<sub>tu</sub> 450° F, .250-28 UNJF-3B DRY FILM LUBRICANT, COUNTERSUNK OR DIMPLED HOLES

#### NOTES

1. ALL DIMENSIONS ARE IN INCHES
2. IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS STANDARD AND THE REFERENCES CITED HEREIN THE TEXT OF THIS STANDARD SHALL TAKE PRECEDENCE
3. REFERENCED GOVERNMENT (OR NON-GOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN
4. DESIGN AND USAGE LIMITATIONS THESE NUTS ARE DESIGNED TO DEVELOP THE TENSILE STRENGTH OF BOLTS AND SCREWS WITH AN ULTIMATE TENSILE STRENGTH OF 125 KSI BASED ON THE CROSS SECTION AREA AT THE BASIC ROOT DIAMETER OF THE THREADS THESE NUTS ARE DESIGNED TO BE USED ON 3A EXTERNAL THREADS THESE NUTS SHALL BE USED IN ACCORDANCE WITH THE LIMITATIONS OF MS33588 ONLY NUTS FOR WHICH THERE ARE QUALIFIED PRODUCTS LISTED ON OPL 25027 SHALL BE USED
5. MS21057 SUPERSEDES NAS685

#### INTERCHANGEABILITY RELATIONSHIP

MS21057 NUTS CAN UNIVERSALLY REPLACE NAS685 NUTS OF LIKE MATERIAL, THREAD SIZE, PLATING, LUBRICANTS (DRY FILM OR NON-DRY FILM), RIVET SPACING AND FASTENING METHOD (PLAIN RIVET HOLES, DIMPLED OR COUNTERSUNK RIVET HOLES OR PROJECTION WELDING) BUT THESE NAS685 NUTS CANNOT UNIVERSALLY REPLACE MS21057 NUTS

INTERCHANGEABILITY TABLE

CANCELLED PART NUMBERS	SUBSTITUTIVE PART NUMBERS
NAS685X08	MS21057-08
NAS685X08K	MS21057-08K
NAS685A08	MS21057L08
NAS685A08K	MS21057L08K
NAS685X3	MS21057-3
NAS685X3K	MS21057-3K
NAS685A3	MS21057L3
NAS685A3K	MS21057L3K
NAS685X4	MS21057-4
NAS685X4K	MS21057-4K
NAS685A4	MS21057L4
NAS685A4K	MS21057L4K
NAS685X5	MS21057-5
NAS685X5K	MS21057-5K
NAS685A5	MS21057L5
NAS685A5K	MS21057L5K

PREPARING ACTIVITY DLA-IS CUSTODIANS ARMY-AV NAVY-AS AIR FORCE-II DLA- REVIEW USER CR, MI PROJECT NUMBER 5310-1948	<b>MILITARY SPECIFICATION SHEET</b> TITLE NUT, SELF-LOCKING, PLATE, CORNER 100° CSK, LOW HEIGHT, ALLOY STEEL 125 KSI F <sub>tu</sub> 450° F	SPECIFICATION SHEET NUMBER <b>MS21057</b> 1 FEB 94 REV C SUPERSEDING MS21057 F 30 SEPT 87 (SEE NOTE 5) AMSC- N/A FSC 5310
DISTRIBUTION STATEMENT A Approved for public release distribution is unlimited		Page 2 of 2

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