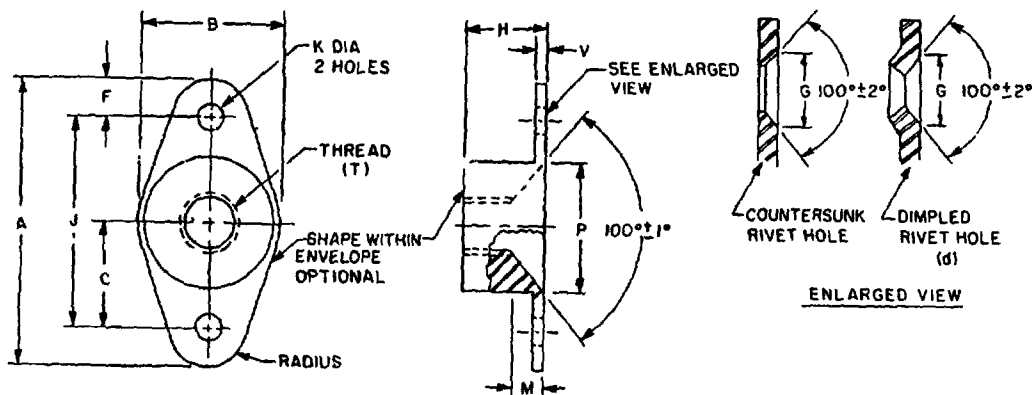


USER SYMBOLS
ARMY ER, MI, AT, ME

REVIEWER SYMBOLS
NAVY AS
USAF 11, 92
ARMY AV
DLA IS

FED SUP CLASS
5310

CONFIGURATION OF NUT OPTIONAL WITHIN
THE LIMITATIONS IMPOSED BY DIM'S, AND
REQUIREMENTS AS SPECIFIED HEREIN.



(a) (T) THREAD SIZE	A MAX	B		C ±.005	F MIN.	G DIA. ±.010	(b) H MAX.	(c) J ±.002	K DIA. +.005 - .000	M REF	P DIA ±.005	V MAT'L MAX.	AXIAL STRENGTH LBS MIN	WEIGHT LBS/100 MAX.
		MAX.	MIN											
.1640-32 UNJC-3B	.948	.422	.360	.344	.100	.200	.272	.688	.088	.084	.365	.047	1,720	.39
.1900-32 UNJF-3B	.948	.453	.406	.344	.100	.200	.281	.688	.098	.093	.411	.047	2,460	.41
.2500-28 UNJF-3B	1.260	.619	.535	.500	.100	.200	.340	1.000	.098	.121	.540	.055	4,580	.88
.3125-24 UNJF-3B	1.292	.766	.681	.500	.125	.230	.422	1.000	.130	.156	.686	.065	7,390	1.17

- (a) THREADS BEFORE LUBRICATION PER MIL-8-8879
(b) MINIMUM "H" NOT SPECIFIED, LIMITED ONLY BY STRENGTH REQUIREMENTS
(c) CENTER OF THE TAPPED HOLE SHALL NOT DEVIATE IN ANY DIRECTION FROM THE CENTER OF THE PLATE NUT AS DETERMINED BY THE RIVET HOLES BY MORE THAN .005
(d) DIMPLED HOLE TOLERANCE FOR "K" IS +.015, - .000 AFTER FORMING

- (E) MATERIAL Carbon Steel UNS G10350 (AISI 1035)
UNS G10400 (AISI 1040)
UNS G10420 (AISI 1042)
UNS G10500 (AISI 1050)
Alloy Steel UNS G41300 (AISI 4130)
UNS G43400 (AISI 4340)
UNS G87400 (AISI 8740)

PLATING 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

- (E) HARDNESS 49 HRC MAX

- (E) LUBRICANT DRY FILM LUBRICANT APPROVED IN ACCORDANCE WITH MIL-N-25027 OTHER LUBRICANTS SOLUBLE IN THE CLEANER SPECIFIED IN MIL-S-7502

DIMENSIONS IN INCHES

SURFACE ROUGHNESS IN ACCORDANCE WITH ANSI B46 1 UNLESS OTHERWISE SPECIFIED, THE SURFACE ROUGHNESS SHALL NOT EXCEED 125 MICROINCHES

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 A CROSS SECTIONAL AREA AT THE BASIC ROOT DIAMETER OF THE THREAD THESE NUTS ARE DESIGNED TO BE USED ON JA EXTERNAL THREADS THESE NUTS SHALL BE USED IN ACCORDANCE WITH THE LIMITATIONS OF MS33588 ONLY NUTS FOR WHICH THERE ARE QUALIFIED PRODUCTS LISTED ON QPL 25027 SHALL BE USED

IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS STANDARD AND THE REFERENCES CITED HERFIN, THE TEXT OF THIS STANDARD SHALL TAKE PRECEDENCE

- (E) REFERENCED GOVERNMENT (OR NON-GOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DoDSS) SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN

(E) DENOTES CHANGES

P.A. NAVY - AS Other Cust USAF - 11 ARMY - AV	TITLE NUT, SELF-LOCKING, PLATE, TWO LUG, 100° CSK, LOW HEIGHT, STEEL, 125 KSI Ft _u , 450°F	MILITARY STANDARD MS21049
PROCUREMENT SPECIFICATION MIL-N-25027	SUPERSEDES NAS681, AN361, AND AN373 IN PART	SHEET 1 OF 2

DD FORM 1 MAR 72 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

PROJECT NO 5310-1362

APPROVED 12 JUN 64 REVISED (A) 12 FEB 65 (B) 4 NOV 66 (C) 21 DEC 71 (D) 15 MAR 78 (E) 24 SEP 86

DISTRIBUTION STATEMENT 1. APPROVED FOR PUBLIC RELEASE. DISTRIBUTION IS UNLIMITED.
This document is approved for use by all Departments & Agencies of the Department of Defense. Selection for all non-military and foreign applications and for reproduction shall be made from this document.

AMSC N/A

REVIEWER SYMBOLS
ARMY - ER, MI, A, T, ME

REVIEWER SYMBOLS
NAVY - AS
AIR FORCE - II, B 2
ARMY - AV
DLA - IS

FED SUP CLASS
5310

INTERCHANGEABILITY RELATIONSHIP

SEE SHEET 2

MS 21049 NUTS CAN UNIVERSALLY REPLACE NAS 681, AN 361 AND AN 373 NUTS OF LIKE MATERIAL, THREAD SIZE, PLATING, LUBRICANTS (DRY FILM, OR NON DRY FILM), RIVET SPACING, AND FASTENING METHOD (PLAIN RIVET HOLES, DIMPLED, COUNTERSUNK RIVET HOLES OR PROJECTION WELDING) BUT NAS 681, AN 361, AND AN 373 NUTS CANNOT UNIVERSALLY REPLACE MS 21049 NUTS

THREAD SIZE	DASH NUMBERS			
	450°F. NON DRY FILM LUBRICATED		450°F DRY FILM LUBRICATED	
	PLAIN HOLES	CTSK OR DIMPLED HOLES	PLAIN HOLES	CTSK OR DIMPLED HOLES
.1640-32 UNJC-3B	-08	-08K	L08	L08K
.1900-32 UNJF-3B	-3	-3K	L3	L3K
.2500-28 UNJF-3B	-4	-4K	L4	L4K
.3125-24 UNJF-3B	-5	-5K	L5	L5K

EXAMPLE OF PART NUMBER

MS21049L4K

NUT DASH NUMBER

BASIC PART NO.

2500-28 UNJF-3B NUT, SELF LOCKING, TWO LUG, STEEL, 125 KSI, 450°F, DRY FILM LUBRICATED, WITH COUNTERSUNK OR DIMPLED RIVET HOLES

"Review/user information is current as of the date of this document. For future coordination of changes to this document, draft circulation should be based on the information in the current DODSS."

INTERCHANGEABILITY TABLE			
INACTIVE FOR DESIGN AND CANCELLED PART NUMBERS			SUBSTITUTIVE PART NUMBERS
AN 361	AN 373	NAS 681	
AN 361 - 832	AN 373 - F832	NAS 681 - X08	MS21049-08
↑ ---	↑ - F832A	↑ ---	NO SUBS. PART
---	---	↑ - X08K	MS21049-08K
- 832	- F832	- A08	MS21049-L08
---	- F832B	---	NO SUBS. PART
---	---	- A08K	MS21049-L08K
- 1032	- F1032	- X3	MS21049-3
---	- F1032A	---	NO SUBS. PART
- 1032	- F1032	- A3	MS21049-L3
---	- F1032B	---	NO SUBS. PART
---	---	- A3K	MS21049-L3K
- 428	- F428	- X4	MS21049-4
---	- F428A	---	NO SUBS. PART
---	---	- X4K	MS21049-4K
- 428	- F428	- A4	MS21049-L4
---	- F428B	---	NO SUBS. PART
---	---	- A4K	MS21049-L4K
---	---	- X3K	MS21049-3K
- 524	- F524	- X5	MS21049-5
---	- F524A	---	NO SUBS. PART
---	---	- X5K	MS21049-5K
- 524	- F524	- A5	MS21049-L5
---	- F524B	---	NO SUBS. PART
AN 361 ---	AN 373 ---	NAS681 - A5K	MS21049-L5K

DISTRIBUTION STATEMENT A. APPROVED FOR PUBLIC RELEASE. DISTRIBUTION IS UNLIMITED.
This military standard is approved for use by all Departments & Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

AMSC N/A

P A NAVY - AS Other Cust USAF - 11 ARMY - AV	TITLE NUT, SELF-LOCKING, PLATE, TWO LUG, 100° CSK LOW HEIGHT, STEEL, 125 KSI FtU, 450°F	MILITARY STANDARD	
		MS21049	
PROCUREMENT SPECIFICATION MIL-N-25027	SUPERSEDES NAS681, AN361 AND AN373 IN PART	SHEET	2 OF 2

DD FORM 1 MAR 72 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

APPROVED 12 JUNE 1964 REVISED (E) FOR CHANGES SEE SHEETS 1 AND 2