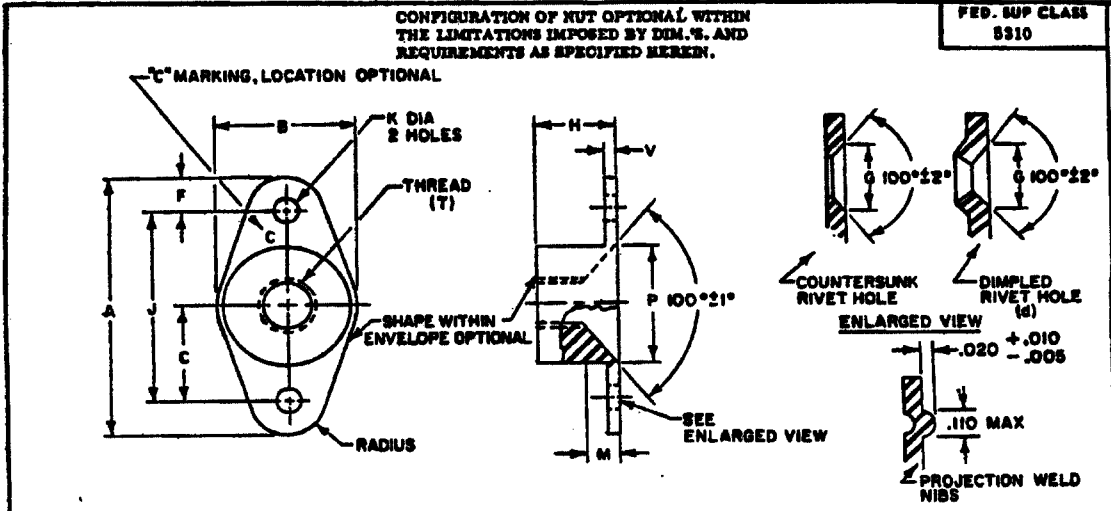


REVIEWER SYMBOLS:  
Army - EI, MI, AT, ME  
Navy - AV  
USAF - 11  
DRA - 25

"Number/size information is current as of the date of this document. For future coordination of changes to this document, draft classification should be based on the information in the current 5310."

This military standard is mandatory for use by all Departments & Agencies of the Department of Defense. Selection for all new engineering and design applications and for reapplication use shall be made from this document.



(T) THREAD SIZE	A MAX	B MAX MIN	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
.1640-32 UNJC-3R	.948	.422 .380	.344	.100	.200	.272	.688	.098	.084	.385	.047	1,720	.38
.1900-32 UNJF-3R	.948	.453 .406	.344	.100	.200	.281	.688	.098	.083	.411	.047	2,460	.41
.2500-28 UNJF-3R	1.260	.619 .556	.500	.100	.350	.340	1.000	.130	.121	.540	.066	4,580	.88
.3125-24 UNJF-3R	1.292	.786 .681	.500	.125	.350	.422	1.000	.130	.156	.656	.066	7,390	1.17

- (a) THREADS BEFORE LUBRICATION PER MIL-S-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

**MATERIAL:** CORROSION RESISTANT STEEL, (A286) AMS 5525, AMS 5735, OR AMS 5737. PLATE THICKNESS, MEASURED ON ANY EXTERNAL SURFACE OF THE NUT, SHALL NOT BE LESS THAN 0.002 IN. THREADS SHALL SHOW COMPLETE COVERAGE BUT THICKNESS REQUIREMENTS ON THREAD IS WAIVED. NO SILVER PLATE ON WELD NIBS AND OPTIONAL ON OTHER EXTERNAL SURFACES.

**MAGNETIC PERMEABILITY:** SHALL BE LESS THAN 2.0 (AIR = 1.0) FOR A FIELD STRENGTH H = 200 OERSTEDS USING A MAGNETIC PERMEABILITY INDICATOR PER MIL-I-17214, OR EQUIVALENT.

**HARDNESS:** ROCKWELL C49 MAXIMUM

**LUBRICANT:** 450° F. NUTS ONLY, DRY FILM LUBRICANT IN ACCORDANCE WITH MIL-N-25027 FOR USAF APPLICATIONS.

**ⓓ NUTS TREATED WITH DRY FILM LUBRICANTS SHALL NOT BE USED IN INTERNAL FUEL SYSTEMS.**

**DIMENSIONS IN INCHES.**

**SURFACE ROUGHNESS IN ACCORDANCE WITH ANSI (USAS) B46.1 UNLESS OTHERWISE SPECIFIED, THE SURFACE ROUGHNESS SHALL NOT EXCEED 125 MICRO INCHES.**

**PERFORMANCE:** SEE PROCUREMENT SPECIFICATION, EXCEPT 450° F. DRY FILM LUBRICATED NUTS LIMITED TO FIVE REUSE CYCLES.

**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 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 QPL25027 SHALL BE USED.

**INTERCHANGEABILITY RELATIONSHIP:** MS21050 NUTS CAN UNIVERSALLY REPLACE NAS661 AND AN361 NUTS OF LIKE MATERIAL, THREAD SIZE, PLATING, LUBRICANTS (SILVER PLATE OR DRY FILM LUBRICANT), RIVET SPACING, AND FASTENING METHOD (PLAIN RIVET HOLES, DIMPLED, COUNTERSUNK RIVET HOLES OR PROJECTION WELDING). BUT NAS 661 AND AN 361 NUTS CANNOT UNIVERSALLY REPLACE MS21050 NUTS.

SEE SHEET 2

FOR DESIGN FEATURE PURPOSES THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.

ⓓ DENOTES CHANGES

P.A. NAVY - AS Other Cust Army - AV USAF - 11	TITLE NUT, SELF-LOCKING, PLATE, TWO LUG, 100° CSK LOW HEIGHT, CRES, 125 KSI F1U, 450° & 800° F	MILITARY STANDARD MS21050
PROCUREMENT SPECIFICATION MIL-N-25027	SUPERSEDES: NAS 661 AND AN 361	SHEET 1 OF 2

APPROVED 12 June 64 REVISED 12 Feb 66 4 Mar 68 21 Dec 71 15 MARCH 1978

USER SYMBOLS:

Army - EL, MI, AT, ME

REVIEWER SYMBOLS:

Army - AV  
Navy - AS  
USAF - 11  
DSA - B

THREAD SIZE	DASH NUMBERS					
	800° F			450° F		
	PLAIN HOLES	CTSK OR DIMPLED HOLES	WELDING PROJECTION	PLAIN HOLES	CTSK DIMPLED HOLES	WELDING PROJECTION
.1640-32 UNJC-3B	-08	-08K	-08W	L08	L08K	L08W
.1900-32 UNJF-3B	-3	-3K	-3W	L3	L3K	L3W
.2500-28 UNJF-3B	-4	-4K	-4W	L4	L4K	L4W
.3125-24 UNJF-3B	-5	-5K	-5W	L5	L5K	L5W

EXAMPLE OF PART NUMBER

MS21050LAK

NUT DASH NUMBER

BASIC PART NO.

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

\*Review/ear information is current as of the date of this document. For future coordination of changes to this document, draft identification should be based on the information in the current 808158.

This military standard is mandatory for use by all Departments & Agencies of the Department of Defense. Selection for all new engineering and design applications and for replacement use shall be made from this document.

INTERCHANGEABLE TABLE		
INACTIVE FOR DESIGN AND CANCELLED PARTS		SUBSTITUTIVE PARTS
AN 361	NAS 681	
ANS61-C832	NAS-C08	MS 21050-08
↑ ---	↑ -C08K	↑ -08K
-WC832	---	-08W
---	-C08M	-L08
---	-C08MK	-L08K
---	---	-L08W
-C1032	-C3	-3
---	-C3K	-3K
-WC1032	---	-3W
---	-C3M	-L3
---	-C3MK	-L3K
---	---	-L3W
-C428	-C4	-4
---	-C4K	-4K
-WC428	---	-4W
---	-C4M	-L4
---	-C4MK	-L4K
---	---	-L4W
-C524	-C5	-5
---	-C5K	-5K
-WC524	---	-5W
---	-C5M	-L5
---	-C5MK	-L5K
↓ AN361 ---	↓ NAS ---	↓ MS 21050-L5W

P.A. NAVY - AS Other Code Army - AV USAF - 11	TITLE NUT, SELF-LOCKING, PLATE, TWO LUG, 100°CSK, LOW HEIGHT, CRES, 125 KSI FTU, 450° & 800° F	MILITARY STANDARD <b>MS21050</b>
		SHEET 2
PROCUREMENT SPECIFICATION MIL-N-25027	SUPERSEDES: NAS 681 AND AN 361	

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

PLATE NO. 1632

U.S. GOVERNMENT PRINTING OFFICE: 1976-703-122/2241

APPROVED 13 June 64 REVISED (D) FOR CHANGES SEE SHEETS 1 AND 2