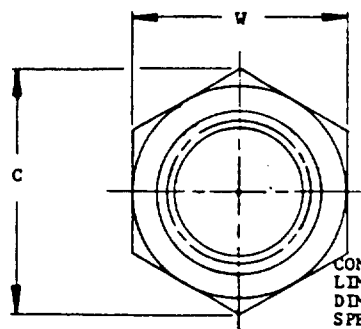


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This military standard is approved for use by all Departments &
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made from this document.SHAPE OF TOP
OPTIONAL

"T" (THREAD)

(b)

CONFIGURATION OF NUT OPTION
LIMITATION IMPOSED ONLY ON
DIMENSIONS AND REQUIREMENT
SPECIFIED HEREINA
FCOUNTERSINK,
COUNTERBORE OR RADIUS
RELIEF TO THREAD "D"
88° MIN ANGLE

88° MIN

WASHER FACE CHAMFER
OR RADIUS RELIEF TO
HEX FLATS OPTIONAL
WHEN WITHIN THE 30°
± 5° ANGLE AND B DIA
LIMITATION

DASH NUMBERS	NON-DRY LUB	DRY LUB	(a) (c) T THREAD	A		C		D		F		W		AXIAL STRENGTH LB MIN	WEIGHT LB/100 MAX
				MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN		
7	L 7		.4375-20UNJF-3B	.328	.765	.478	.448	.109	.690	.679		10,300		1.93	
8	L 8		.5000-20UNJF-3B	.328	.836	.551	.521	.109	.752	.741		13,750		2.18	
9	L 9		.5625-18UNJF-3B	.375	.978	.614	.584	.125	.877	.865		17,400		3.41	
10	L 10		.6250-18UNJF-3B	.407	1.050	.676	.646	.156	.940	.928		21,900		3.97	
12	L 12		.7500-16UNJF-3B	.422	1.192	.807	.777	.172	1.064	1.052		31,800		5.51	
14	L 14		.8750-14UNJF-3B	.485	1.405	.933	.903	.203	1.252	1.239		43,150		8.16	
16	L 16		1.0000-12UNJF-3B	.578	1.619	1.059	1.029	.250	1.440	1.427		56,000		13.25	
18	L 18		1.1250-12UNJF-3B	.672	1.832	1.186	1.156	.313	1.627	1.614		72,000		16.51	
20	L 20		1.2500-12UNJF-3B	.766	2.046	1.310	1.280	.328	1.814	1.801		90,000		28.14	
22	L 22		1.3750-12UNJF-3B	.821	2.259	1.467	1.437	.328	2.002	1.988		109,000		45.00	
24	L 24		1.5000-12UNJF-3B	.884	2.473	1.588	1.558	.328	2.190	2.175		131,000		60.00	

- (a) THREADS IN ACCORDANCE WITH MIL-S-8879.
 (b) NUT SHALL BE MARKED IN ACCORDANCE WITH NAS1347 WITH MANUFACTURER'S IDENTIFICATION.
 (c) FOR SIZES SMALLER THAN .4375 SEE MS21042.

NOTES: 1. MATERIAL: STEEL UNS G10500 (AISI 1050) PER AMS 5085

(D) UNS G41300 (AISI 4130) PER AMS 6350, 6351, 6360, 6361, 6362, 6370, 6371, 6373

UNS G41400 (AISI 4140) PER AMS 6381, 6382, 6390, 6395

UNS G43400 (AISI 4340) PER AMS 6359, 6414, 6415, 6454

UNS G87400 (AISI 8740) PER AMS 6322, 6323, 6325, 6327, 6358

2. PLATING: CADMIUM PLATING IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 2. DRY FILM LUBRICATED NUTS IN ACCORDANCE WITH QQ-P-416, TYPE AND CLASS OPTIONAL, IF THE NUTS WILL MEET THE SALT SPRAY REQUIREMENTS OF QQ-P-416, TYPE II.

3. LUBRICANT: LUBRICANT APPROVED IN ACCORDANCE WITH MIL-N-25027. LUBRICANT, EXCEPT DRY FILM LUBRICANTS, SHALL BE SOLUBLE IN THE CLEANER SPECIFIED IN THE PROCUREMENT SPECIFICATION.
 (D) ~~FOR USAF APPLICATION NUTS TREATED WITH DRY FILM LUBRICANTS SHALL NOT BE UTILIZED IN INTEGRAL FUEL TANKS.~~

4. HARDNESS: 46 HRC MAXIMUM

5. BREAK ALL SHARP EDGES AND REMOVE BURRS AND SLIVERS. SURFACE TEXTURE IN ACCORDANCE WITH ANSI (USAS) B46.1 SHALL NOT EXCEED 125 MICROINCHES.

6. DIMENSIONS IN INCHES.

7. EXAMPLE OF PART NUMBER: MS21245-3-.5000-20 STEEL NUT CADMIUM PLATED, NON-DRY FILM LUBRICATED.
 MS21245-L8-.5000-20 STEEL NUT CADMIUM PLATED, DRY FILM LUBRICATED.

8. DESIGN AND USAGE LIMITATIONS: THESE NUTS ARE DESIGNED FOR SHEAR APPLICATIONS AND ARE DESIGNED TO DEVELOP AN ULTIMATE TENSILE STRESS IN THE BOLT OF 30 KSI BASED ON THE CROSS SECTIONAL AREA AT THE BASIC PITCH DIAMETER OF 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.

9. INTERCHANGEABILITY RELATIONSHIP: MS21245 NUTS CAN UNIVERSALLY REPLACE THE ALL METAL AN364, MS20364, NAS1022 NUTS OF LIKE MATERIAL, PLATING AND THREAD SIZE. BUT AN364, MS20364, AND NAS1022 NUTS CANNOT UNIVERSALLY REPLACE THE MS21245 NUTS.

- * CERTAIN PROVISIONS (THE DIMENSIONS ACROSS THE WRENCHING FLATS) OF THIS STANDARD ARE THE SUBJECT OF INTERNATIONAL STANDARDIZATION AGREEMENT ABC AIR STD 17/2. WHEN REVISION OR CANCELLATION OF THIS STANDARD IS PROPOSED WHICH WILL AFFECT OR VIOLATE THE INTERNATIONAL AGREEMENT CONCERNED, THE PREPARING ACTIVITY WILL TAKE APPROPRIATE RECONCILIATION ACTION THROUGH INTERNATIONAL STANDARDIZATION CHANNELS INCLUDING DEPARTMENTAL STANDARDIZATION OFFICES, IF REQUIRED.

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 BIDS, OR REQUEST FOR PROPOSAL, EXCEPT THAT REFERENCED ADOPTED INDUSTRY DOCUMENTS SHALL GIVE THE DATE OF THE ISSUE ADOPTED.

(D) DENOTES CHANGES

P.A. NAVY - AS Other Cust USAF - 99 ARMY - AV	INTER- NATIONAL INTEREST *	TITLE NUT, SELF-LOCKING, HEXAGON, THIN, 450°F, 80 KSI Fcu	MILITARY STANDARD	
			MS21245	
PROCUREMENT SPECIFICATION MIL-N-25027		SUPERSEDES AN364 IN PART MS20364 IN PART, NAS 1022 IN PART.	SHEET 1	OF 2

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PLATE NO 73065

PROJECT NO 5310-1307

APPROVED 22 JUL 69
REVISED (A) 30 SEP 70 (B) 1 JUN 73 (C) 30 NOV 73 (D) 30 NOV 88

FED. SUP CLASS
5310

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TABLE I

INTERCHANGEABILITY TABLE			
CANCELED AND INACTIVATED PART NUMBERS			SUBSTITUTIVE PART NUMBERS
AN364	MS20364	NAS1022	
--	--	XA7	MS21245- 7
720C	720C	A7	↑ -L7
--	--	XA8	- 8
820C	820C	A8	-L8
--	--	XA9	- 9
918C	918C	A9	-L9
--	--	XA10	-10
1018C	1018C	A10	-L10
--	--	XA12	-12
1216C	1216C	A12	-L12
--	--	XA14	↓ -14
1414C	1414C	A14	MS21245-L14
1614C	1614C	XA17	NAS1022XA17
--	--	XA16	MS21245 -16
--	--	A16	↑ -L16
--	--	XA18	-18
1812C	1812C	A18	-L18
--	--	XA20	-20
2012C	2012C	A20	-L20
--	--	--	-22
--	--	--	-L22
--	--	--	↓ -24
--	--	--	MS21245-L24

(D) BIDS SHALL BE SOLICITED ONLY FROM THE MANUFACTURERS OR DISTRIBUTORS LISTED ON QPL-25027.

APPROVED 22 JUL 69 REVISED (D) FOR CHANGES SEE SHEET 1 AND 2

P.A. NAVY - AS Other Cust USAF - 99 ARMY - AV	INTER- NATIONAL INTEREST *	TITLE NUT, SELF-LOCKING, HEXAGON-THIN, 450°F, 80 KSI Fcu	MILITARY STANDARD MS21245
PROCUREMENT SPECIFICATION MIL-N-25027	SUPERSEDES AN364 IN PART MS20364 IN PART, NAS 1022 IN PART		INSET 2 OF 2

DD FORM 672-1 (Coord. noted)

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