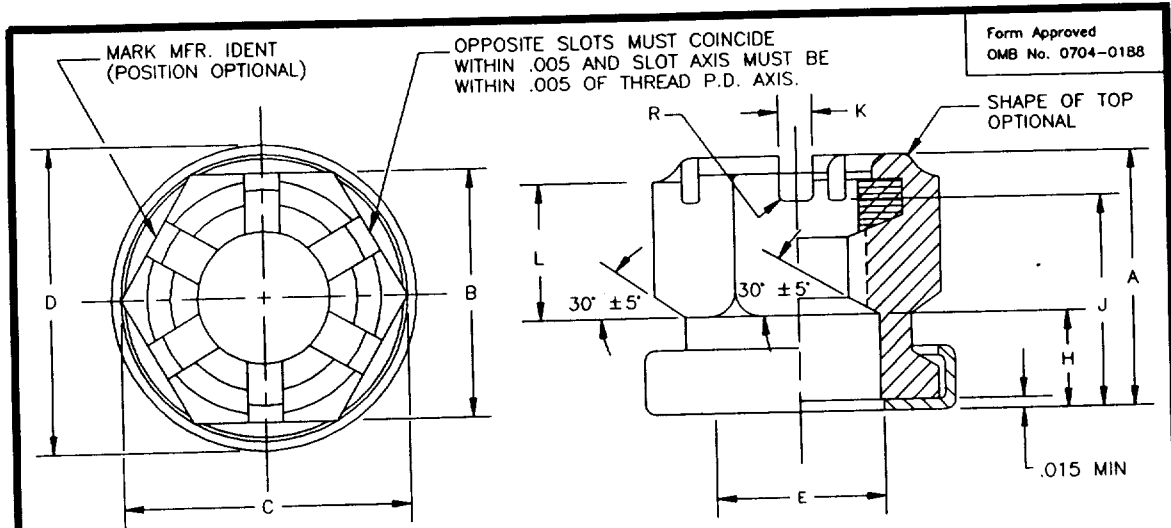


THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODISS SPECIFIED IN THE SOLICITATION: MIL-N-25027.

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



Form Approved  
OMB No. 0704-0188

SIZE DASH NO.	THREADS PER MIL-S-8879 (b)	A		B		C	D		(c) E (d)		H	
		MAX	MIN	MAX	MIN	MIN	MAX	MIN	MAX	MIN	MAX	MIN
-3	.1900-32UNJF-3B	.374	.344	.376	.367	.413	.490	.480	.240	.230	.161	.141
-4	.2500-28UNJF-3B	.405	.375	.439	.430	.488	.560	.530	.309	.299	.192	.172
-5	.3125-24UNJF-3B	.436	.406	.502	.492	.557	.640	.610	.395	.385	.223	.203
-6	.3750-24UNJF-3B	.482	.452	.564	.553	.628	.710	.680	.460	.450	.238	.218
-7	.4375-20UNJF-3B	.513	.483	.627	.616	.698	.785	.755	.529	.519	.269	.249
-8	.5000-20UNJF-3B	.576	.546	.752	.741	.840	.925	.895	.614	.604	.301	.281
-9	.5625-18UNJF-3B	.670	.640	.877	.865	.988	1.080	1.050	.686	.676	.332	.312
-10	.6250-18UNJF-3B	.822	.802	1.002	.990	1.121	1.224	1.194	.770	.760	.407	.387
-12	.7500-16UNJF-3B	.951	.921	1.064	1.052	1.191	1.283	1.253	.915	.905	.450	.430
-14	.8750-14UNJF-3B	1.058	1.028	1.252	1.239	1.403	1.495	1.465	1.065	1.055	.495	.475
-16	1.000-12UNJF-3B	1.202	1.172	1.440	1.427	1.615	1.707	1.677	1.215	1.205	.544	.524

SIZE DASH NO.	J		K		L	R	X WRENCHING & VIBRATION TORQUE	Y INSTL. ASSEMBLY	Z LOCKING TORQUE	ULTIMATE TENSILE STRENGTH (a)	WEIGHT
	MAX	MIN	MAX	MIN	MIN	MAX	MIN IN-LB	IN-LB	MAX IN-LB	LBS MIN	LB/100 APPROX
-3	.279	.259	.108	.070	.110	.035	30	20	9	1,000	.91
-4	.316	.296					65	45	15	1,800	1.20
-5	.347	.327					115	90	25	2,900	1.50
-6	.378	.358	.155	.125	.130	.053	200	125	40	4,100	1.90
-7	.409	.389					300	225	50	5,000	2.17
-8	.472	.452					375	300	75	5,600	3.60
-9	.550	.530	.187	.157	.170	.062	500	400	100	7,800	6.20
-10	.633	.613					750	600	150	10,000	10.20
-12	.765	.745					1400	1100	200	15,500	11.20
-14	.871	.851	.288	.333	.220	.062	2400	1900	300	22,800	17.70
-16	.984	.964					3800	3000	400	35,500	27.50

(D) ENTIRE SPECIFICATION REVISED

INCH - POUND

PREPARING ACTMITY: DLA-IS  
CUSTODIANS: ARMY- AV NAVY- AS  
AIR FORCE- 99 DLA-  
REVIEW: AR, AS, ER  
USER:  
PROJECT NUMBER: 5310-1859

MILITARY SPECIFICATION SHEET  
TITLE  
NUT, SELF-LOCKING, CASTELLATED, HEXAGON, COUNTERBORED, ASSEMBLED WASHER, 250°F, NON-METALLIC INSERT (FOR SELF-RETAINING BOLTS)

SPECIFICATION SHEET NUMBER  
MS21224 23 AUG 93 REV D  
SUPERSEDING MS21224 C 30 NOV 88  
AMSC- N/A FSC 5310

DISTRIBUTION STATEMENT  
A. Approved for public release; distribution is unlimited.

Page 1 of 2

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.

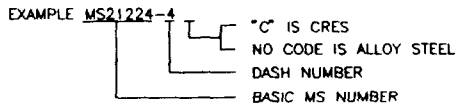
Form Approved  
OMB No. 0704-0188

- (a) ULTIMATE AXIAL STRENGTHS ARE NOT IN ACCORDANCE WITH MIL-N-25027.
- (b) NUTS WILL ASSEMBLE ON EITHER MIL-S-7742 OR MIL-S-8879 THREADED BOLTS.
- (c) CONCENTRICITY: "E" TO BE CONCENTRIC TO P.D. OF THREAD WITHIN .005 TIR.
- (d) WASHER I.D. MAY BE .005 LESS THAN "E" MIN.

**REQUIREMENTS:**

1. MATERIALS: BODY - STEEL UNS G11370 (AISI 1137) PER AMS 5024  
 UNS G11374 PER AMS 5020  
 UNS G87400 (AISI 8740) PER AMS 6322, AMS 6323, AMS 6325, AMS 6327, AND AMS 6358  
 CRES A286 (UNS S66286) PER AMS 5525, AMS 5532, AMS 5732, AND AMS 5737  
 WASHER - ALUMINUM ALLOY 2024-T4 PER QQ-A-250, QQ-A-225 AND 7075 T6 PER QQ-A-250  
 NON-METALLIC INSERT - NYLON OR EQUIVALENT
2. PROTECTIVE TREATMENT: a. ALLOY STEEL NUT - CADMIUM PLATING IN ACCORDANCE WITH QQ-P-416 TYPE II, CLASS 2.  
 b. CRES NUT - PASSVATE IN ACCORDANCE WITH QQ-P-35.  
 c. WASHER-ALODINE MIL-C-5541.
3. THREADED NUT ELEMENT SHALL ROTATE FREELY IN AND AGAINST THE WASHER.
4. PERFORMANCE: PER MIL-N-25027 EXCEPT FOR:  
 VIBRATION TEST PER MIL-STD-1312-7 USING ASSEMBLY TORQUE VALUES LISTED IN COLUMN X FOR ONE SEATED CYCLE.  
 LOCKING TORQUE VALUES APPLICABLE FOR ONLY ONE CYCLE AT ROOM TEMPERATURE SEE (a) AND COLUMNS X, Y, & Z OF TABLE.
5. MAGNETIC PERMEABILITY OF CRES NUTS SHALL BE LESS THAN 2.0 (AIR = 1.0) FOR A FIELD STRENGTH H = 200 OERSTEDS USING A MAGNETIC PERMEABILITY INDICATOR IN ACCORDANCE WITH MIL-I-17214 OR EQUAL.
6. SURFACE TEXTURE IN ACCORDANCE WITH ANSI/ASME B46.1 SHALL NOT EXCEED 125 MICROINCHES.
7. TOLERANCE: DECIMALS ±.010.
8. PART NUMBER: THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER.

EXAMPLE OF PART NUMBER: MS21224-4 = .250-28 UNJF-3B ALLOY STEEL NUT, CADMIUM PLATED, ASSEMBLED ALUMINUM WASHER TO NON-METALLIC LOCKING FEATURE.  
 MS21224-4C = .250-28 UNJF-3B CRES NUT, PASSVATED, ASSEMBLED ALUMINUM WASHER TO NON-METALLIC LOCKING FEATURE.



**NOTES:**

1. BREAK ALL SHARP EDGES AND REMOVE BURRS AND SLIVERS.
2. DIMENSIONS IN INCHES.
3. DESIGN INFORMATION: THESE NUTS ARE FOR USE WITH SELF RETAINING BOLTS AND MAY BE USED AT TEMPERATURES 250°F AND BELOW. FOR DESIGN USAGE LIMITATIONS SEE MS33602. NUTS ARE TO BE INSTALLED IN ACCORDANCE WITH MS33540.
4. 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.
5. 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.
6. BIDS SHALL BE SOLICITED ONLY FROM THE MANUFACTURERS OR DISTRIBUTORS LISTED ON QPL-25027.

PREPARING ACTMITY: DLA-IS CUSTODIANS: ARMY- AV      NAVY- AS AIR FORCE-99      DLA- REVIEW: AR, AS, ER USER: PROJECT NUMBER: 5310-1859	<b>MILITARY SPECIFICATION SHEET</b>  TITLE NUT, SELF-LOCKING, CASTELLATED, HEXAGON, COUNTERBORED, ASSEMBLED WASHER, 250°F, NON-METALLIC INSERT (FOR SELF-RETAINING BOLTS)	SPECIFICATION SHEET NUMBER <b>MS21224</b>	23 AUG 93 REV D
		SUPERSEDING MS21224 C 30 NOV 88	
		AMSC- N/A	FSC 5310
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