

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

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.

DASH NUMBERS		COUNTERSUNK OR DIMPLED RIVET HOLES		PLAIN RIVET HOLES		T		A		B		C		D		E		F		G		H		J		K		P		V		W		AXIAL STRENGTH LBS/MIN		WEIGHT LBS/100	
NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT		
-08	-08	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	-08K	
-3	-3	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	-3K	
-4	-4	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	-4K	
-5	-5	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	-5K	
-6	-6	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	-6K	

TABLE 1. DASH NUMBERS AND DIMENSIONS

1/ MINIMUM "H" NOT SPECIFIED, LIMITED ONLY BY STRENGTH REQUIREMENTS OF SPECIFICATION.  
 2/ 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.  
 3/ DIMPLED RIVET HOLE TOLERANCE FOR "ØK" IS +.015 -.000.

INCH-POUND

PREPARING ACTIVITY: DLA-IS  
 CUSTODIANS: ARMY- AV NAVY- AS  
 AIR FORCE- II DLA-  
 REVIEW: 99  
 USER: CR, MI  
 PROJECT NUMBER: 5310-1960  
 DISTRIBUTION STATEMENT  
 A. Approved for public release; distribution is unlimited.

MILITARY SPECIFICATION SHEET  
 TITLE  
 NUT, SELF-LOCKING, PLATE, SIDE BY SIDE, REDUCED RIVET SPACING, LOW HEIGHT, STEEL, 125 KSI Fl<sub>y</sub>, 450°F

SPECIFICATION SHEET NUMBER  
 MS21086  
 SUPERSEDING  
 MS21086 B 30 SEPT 87 (SEE NOTE 5)  
 AMSC- N/A FSC 5310

1 FEB 94  
 REV C

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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 B740 (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:** 49 HRC, MAX.
5. **THREADS:** THREADS PER 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: MS21086L4K

— DASH NUMBER  
— BASIC MS NUMBER

MS21086L4K INDICATES: NUT, SELF-LOCKING, PLATE, SIDE BY SIDE, REDUCED RIVET SPACING, LOW HEIGHT, STEEL; 125 KSI Flu, 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 THESE ARE QUALIFIED PRODUCTS LISTED ON OPL 25027 SHALL BE USED.
5. MS21086 SUPERSEDES NAS1067 IN PART.

#### INTERCHANGEABILITY RELATIONSHIP

MS21086 NUTS CAN UNIVERSALLY REPLACE NAS1067 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 NAS1067 NUTS CANNOT UNIVERSALLY REPLACE MS21086 NUTS.

#### INTERCHANGEABILITY TABLE

CANCELLED PART NUMBERS	SUBSTITUTIVE PART NUMBERS
NAS1067X08	MS21086-08
NAS1067X08K	MS21086-08K
NAS1067A08	MS21086L08
NAS1067A08K	MS21086L08K
NAS1067X3	MS21086-3
NAS1067X3K	MS21086-3K
NAS1067A3	MS21086L3
NAS1067A3K	MS21086L3K
NAS1067X4	MS21086-4
NAS1067X4K	MS21086-4K
NAS1067A4	MS21086L4
NAS1067A4K	MS21086L4K
NAS1067X5	MS21086-5
NAS1067X5K	MS21086-5K
NAS1067A5	MS21086L5
NAS1067A5K	MS21086L5K
NAS1067X6	MS21086-6
NAS1067A6	MS21086L6

PREPARING ACTIVITY: DLA-IS CUSTODIANS: ARMY- AV      NAVY- AS AIR FORCE- II      DLA- REVIEW: 99 USER: CR, MI PROJECT NUMBER: 5310-1980	<b>MILITARY SPECIFICATION SHEET</b> TITLE NUT, SELF-LOCKING, PLATE, SIDE BY SIDE, REDUCED RIVET SPACING, LOW HEIGHT, STEEL, 125 KSI Flu, 450° F	SPECIFICATION SHEET NUMBER <b>MS21086</b> 1 FEB 94 REV C SUPERSEDING MS21086 B 30 SEPT 87 (SEE NOTE 5) AMSC- N/A      FSC 5310
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