

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 DOORS SPECIFIED IN THE SOLICITATION: MIL-N-25027

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

| DASH NUMBERS | | T | A | B | C | F | g | H | J ^{1/} | g ^{2/} | g ^{3/} | V | AXIAL STRENGTH | WEIGHT | | | |
|--------------|-----------------------|------------------|-------|------|------|------|-------|------|-----------------|-----------------|-----------------|------|----------------|---------|------|--------|------|
| PLAIN HOLES | CTSK OR DIMPLED HOLES | THREAD SIZES | MAX | MAX | MIN | MIN | ±.010 | MIN | ±.002 | ±.005 | MAX | MAX | LBS/MIN | LBS/100 | | | |
| -06 | -06K | .138-32 UNJC-3B | 1.031 | .406 | .375 | .344 | .115 | .200 | .297 | .160 | .312 | .098 | .177 | .138 | .075 | 1,130 | 1.40 |
| -08 | -08K | .164-32 UNJC-3B | 1.031 | .406 | .375 | .344 | .115 | .200 | .297 | .219 | .312 | .098 | .230 | .184 | .075 | 1,720 | 1.30 |
| -3 | -3K | .180-32 UNJC-3B | 1.031 | .406 | .375 | .344 | .115 | .200 | .312 | .234 | .312 | .098 | .230 | .190 | .075 | 2,460 | 1.20 |
| -4 | -4K | .250-28 UNJC-3B | 1.062 | .516 | .438 | .344 | .115 | .200 | .375 | .240 | .312 | .098 | .293 | .250 | .075 | 4,580 | 1.50 |
| -5 | -5K | .3125-24 UNJC-3B | 1.290 | .531 | .500 | .500 | .115 | .230 | .375 | .271 | .312 | .130 | .356 | .312 | .075 | 7,390 | 2.00 |
| -6 | -6K | .375-24 UNJC-3B | 1.344 | .641 | .609 | .500 | .115 | .230 | .433 | .318 | .312 | .130 | .418 | .375 | .075 | 11,450 | 2.50 |

1/ THE 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.

2/ DIMPLED RIVET HOLE TOLERANCE FOR "g" IS ±.015 - .000.

TABLE 1. DASH NUMBERS AND DIMENSIONS

INCH-POUND

PREPARING ACTIVITY: DLA-IS
CUSTODIANS: ARMY- AV NAVY- AS
AIR FORCE-11 DLA-
REVIEW: IS
USER: CR, MI
PROJECT NUMBER: 5310-1856
DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

MILITARY SPECIFICATION SHEET
TITLE: NUT, SELF-LOCKING, PLATE, ONE LUG, NON-METALLIC INSERT, STEEL, 125 KSI FTU, 250°F

SPECIFICATION SHEET NUMBER
MS21080 D 20 APR 93
SUPERSEDING
MS21080C 30 SEPT 87 (SEE NOTE 4)
AMSC- N/A FSC 5310

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DD Form 672, MAY 88

PREVIOUS EDITIONS ARE OBSOLETE


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

Form Approved
OMB No. 0704-0188

REQUIREMENTS:

1. **MATERIALS:** CARBON STEEL, COMPOSITIONS 1035 (UNS G10350), 1040 (UNS G10400) AND 1050 (UNS G10500), IN ACCORDANCE WITH QQ-S-635; 1042 (UNS G10420), 1137 (UNS G11370), IN ACCORDANCE WITH ASTM A29, COMPOSITION 11L37 (UNS G11374) IN ACCORDANCE WITH ASM 5020. ALLOY STEEL, GRADES 4130 (UNS G41300), 4340 (UNS G43400), D8740 (UNS G87400), CARBON STEEL, C110 (UNS G11100) AND C1018 (UNS G10180), IN ACCORDANCE WITH ASTM A29.
2. **FINISH:** CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 2.
3. **DIMENSIONING AND TOLERANCING:** DIMENSIONING AND TOLERANCING SHALL BE IN ACCORDANCE WITH ANSI Y14.5M.
4. **HARDNESS:** 35 HRC, MAX.
5. **THREADS:** THREADS IN ACCORDANCE WITH MIL-S-8879.
6. **SURFACE TEXTURE:** SURFACE TEXTURE, UNLESS OTHERWISE SPECIFIED, SHALL NOT EXCEED 125 MICRONS, IN ACCORDANCE WITH ANSI/ASME B46.1.
7. **VIBRATION LIFE:** MINIMUM VIBRATION LIFE REQUIREMENT SHALL BE THREE TIMES AVERAGE VIBRATION LIFE IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
8. **EDGES:** BREAK ALL SHARP EDGES AND REMOVE ALL HANGING BURRS AND SLIVERS.
9. **PART NUMBERS:** THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE I.

EXAMPLE: MS21080-4


MS21080-4 INDICATES: NUT, SELF-LOCKING, PLATE, ONE LUG, NON-METALLIC INSERT, STEEL; 125 KSI FTU, 250; .250-28 UNJF-3B; PLAIN 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. MS21080 SUPERSEDES NAS 1025 (SEE STATUS NOTE).
5. 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 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 OPL 25027 SHALL BE USED.

INTERCHANGEABILITY RELATIONSHIP

MS21080 NUTS CAN UNIVERSALLY REPLACE NAS1025 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 NAS1025 NUTS CANNOT UNIVERSALLY REPLACE MS21080 NUTS.

INTERCHANGEABILITY TABLE

| CANCELLED PART NUMBERS | SUBSTITUTE PART NUMBERS |
|------------------------|-------------------------|
| NAS1025N06 | MS21080-06 |
| NAS1025N06K | MS21080-06K |
| NAS1025N08 | MS21080-08 |
| NAS1025N08K | MS21080-08K |
| NAS1025N3 | MS21080-3 |
| NAS1025N3K | MS21080-3K |
| NAS1025N4 | MS21080-4 |
| NAS1025N4K | MS21080-4K |
| NAS1025N5 | MS21080-5 |
| NAS1025N5K | MS21080-5K |
| NAS1025N6 | MS21080-6 |
| NAS1025N6K | MS21080-6K |

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|--|--|---|
| PREPARING ACTIVITY: DLA-IS CUSTODIANS: ARMY- AV NAVY- AS AIR FORCE- II DLA- REVIEW: IS USER: CR, MI PROJECT NUMBER: 5310-1856 | MILITARY SPECIFICATION SHEET TITLE NUT, SELF-LOCKING, PLATE, ONE LUG, NON-METALLIC INSERT STEEL, 125 KSI FTU, 250 | SPECIFICATION SHEET NUMBER MS21080 D 20 APR 93 SUPERSEDING MS21080C 30 SEPT 87 (SEE NOTE 4) AMSC- N/A FSC 5310 |
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