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DD Form 672, MAY 88

PREVIOUS EDITIONS ARE OBSOLETE

PREPARING ACTIVITY: DLA-IS

CUSTODIANS: ARMY- AV NAVY- AS AIR FORCE- 11 DLA-

REVIEW:

USER: CR, MI

PROJECT NUMBER: 5310-1949

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

MILITARY SPECIFICATION SHEET

TITLE

NUT, SELF-LOCKING, PLATE, TWO LUG, FLOATING, LOW HEIGHT STEEL, 125 KSI Fiu, 450° F

SPECIFICATION SHEET NUMBER

MS21059 1 FEB 94 REV J

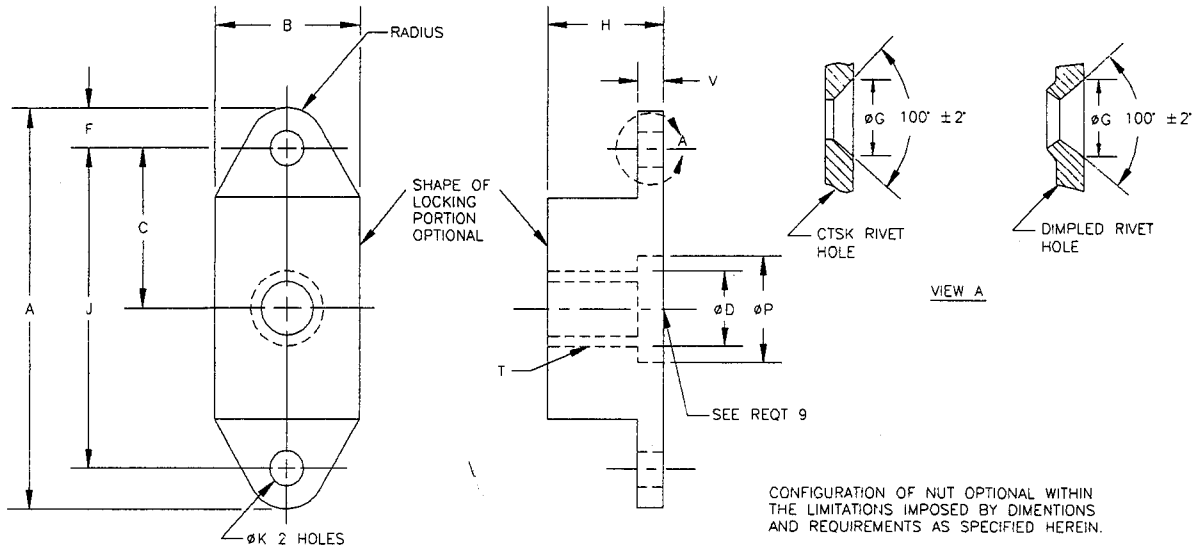
SUPERSEDING MS21059H 30 OCT 89 (SEE NOTE 5.)

AMSC- N/A FSC 5310

Page 1 of 3

(J) DENOTES CHANGE(S)

INCH-POUND



CONFIGURATION OF NUT OPTIONAL WITHIN THE LIMITATIONS IMPOSED BY DIMENTIONS AND REQUIREMENTS AS SPECIFIED HEREIN.

TABLE I. DASH NUMBERS AND DIMENSIONS

DASH NUMBERS				T	A	B		C	øD	øP	øG	H 1/	J	øK 2/	øP		V	AXIAL	WEIGHT
PLAIN RIVET HOLES		COUNTERSUNK OR DIMPLED RIVET HOLES																	
NON-DRY FILM LUBRICANT	DRY FILM LUBRICANT	NON-DRY FILM LUBRICANT	DRY FILM LUBRICANT	THREAD SIZES	MAX	MAX	MIN	±.005	MIN	MIN	±.010	MAX	±.002	+.005 -.000	MAX	MIN	MAX	STRENGTH LBS/MIN	LBS/100
-04	L04	-04K	L04K	.112-40 UNJC-3B	.948	.416	.290	.344	–	.100	.200	.175	.688	.098	.270	.172	.032	750	.38
-06	L06	-06K	L06K	.138-32 UNJC-3B	.948	.416	.290	.344	–	.100	.200	.203	.688	.098	.270	.198	.032	1,130	.39
-08	L08	-08K	L08K	.164-32 UNJC-3B	.948	.416	.290	.344	.168	.100	.200	.250	.688	.098	.270	.224	.032	1,720	.40
-3	L3	-3K	L3K	.190-32 UNJF-3B	.948	.416	.290	.344	.194	.100	.200	.250	.688	.098	.270	.250	.032	2,460	.41
-4	L4	-4K	L4K	.250-28 UNJF-3B	1.292	.516	.350	.500	.254	.100	.200	.281	1.000	.098	.330	.310	.032	4,580	.90
-5	L5	-5K	L5K	.3125-24 UNJF-3B	1.292	.609	.412	.500	.317	.125	.230	.328	1.000	.130	.392	.372	.045	7,390	1.26
-6	L6	–	–	.375-24 UNJF-3B	1.292	.680	.475	.500	.379	.125	.230	.344	1.000	.130	.455	.435	.055	11,450	1.55
-7	L7	–	–	.4375-20 UNJF-3B	1.477	.719	.672	.562	.442	.146	.230	.504	1.125	.161	.517	.497	.115	15,450	3.30
-8	L8	–	–	.500-20 UNJF-3B	1.602	.859	.796	.625	.504	.146	.230	.630	1.250	.161	.580	.560	.115	21,110	4.00

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

Form Approved OMB No. 0704-0188

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Form Approved
OMB No. 0704-0188

REQUIREMENTS:

1. MATERIAL:

(J) NUT - 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 8740 (UNS G87400) IN ACCORDANCE WITH ASTM A29.

(J) RETAINER (IF APPLICABLE) - CARBON STEEL, COMPOSITIONS 1035 (UNS G10350) AND 1050 (UNS G10500), IN ACCORDANCE WITH ASTM A827 OR QQ-S-700; 1042 (UNS G10420) AND ALLOY STEEL GRADE 4130 (UNS G41300), IN ACCORDANCE WITH ASTM A29.

2. FINISH, CADIUM 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: 49HRC, MAX.

5. THREADS: THREADS BEFORE 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.

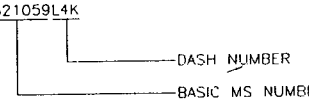
7. LUBRICANT: DRY FILM LUBRICANT APPROVED IN ACCORDANCE WITH MIL-N-25027. NON-DRY LUBRICANTS SHALL BE SOLUBLE IN THE CLEANER SPECIFIED IN MIL-S-8802.

8. COUNTERBORE/COUNTERSINK: ON SIZE .164 AND LARGER, THREAD RELIEF SHALL BE .062 MINIMUM; ON SIZE .138 AND SMALLER, COUNTERSINK OR RADIUSED WITHIN "P" DIAMETER.

9. (J) FLOAT: FLOAT OF NUT ELEMENT PORTION OF ASSEMBLY SHALL NOT BE LESS THAN .030 LATERALLY AND LONGITUDINALLY FROM CENTERED POSITION. NUT BODY SHALL BE CAPABLE OF ENGAGEMENT WITH A BOLT IN THE MAXIMUM MISALIGNED POSITION. MAXIMUM AXIAL FLOAT .020 INCHES FOR .190 AND SMALLER, .030 FOR .250 AND LARGER. NUT MISALIGNMENT SHALL NOT EXCEED DIMENSION "B". THE NUT AND BASE PORTION OF THE ASSEMBLY SHALL FORM ONE INTEGRAL UNIT AND THE SURFACE ASSEMBLY SHALL PROVIDE A BEARING FOR THE NUT.

10. PART NUMBER: THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE I.

EXAMPLE: MS21059L4K



MS21059L4K INDICATES: NUT, SELF-LOCKING, PLATE, TWO LUG, FLOATING, LOW HEIGHT, STEEL; 125 KSI Ftu, 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 THERE ARE QUALIFIED PRODUCTS LISTED ON QPL 25027 SHALL BE USED.
5. MS21059 SUPERSEDES NAS686, NAS1031.

PREPARING ACTIVITY: DLA-IS
CUSTODIANS: ARMY-- AV NAVY-- AS
AIR FORCE-- 11 DLA-
REVIEW:
USER: CR, MI
PROJECT NUMBER: 5310-1949

MILITARY SPECIFICATION SHEET
TITLE
NUT, SELF-LOCKING, PLATE, TWO LUG, FLOATING, LOW HEIGHT STEEL, 125 KSI Ftu, 450° F

SPECIFICATION SHEET NUMBER
MS21059 1 FEB 94 RFV J
SUPERSEDING
MS21059H 30 OCT 89 (SEE NOTE 5.)
AMSC - N/A FSC 5310

DISTRIBUTION STATEMENT
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Form Approved
OMB No. 0704-0188

INTERCHANGEABILITY RELATIONSHIP

MS21059 NUTS CAN UNIVERSALLY REPLACE NAS686 AND NAS1031 NUTS OF LIKE MATERIAL, THREAD SIZE, LUBRICANT (DRY FILM OR NON-DRY FILM), RIVET SPACING AND FASTENING METHOD (PLAIN RIVET HOLES; DIMPLED OR COUNTERSUNK RIVET HOLES), BUT THESE NAS686 AND NAS1031 NUTS CANNOT UNIVERSALLY REPLACE MS21059 NUTS.

INTERCHANGEABILITY TABLE

CANCELLED PART NUMBERS	SUBSTITUTIVE PART NUMBERS
NAS686X04	MS21059-04
NAS686X04K	MS21059-04K
NAS686A04	MS21059L04
NAS686A04K	MS21059L04K
NAS686X06	MS21059-06
NAS686X06K	MS21059-06K
NAS686A06	MS21059L06
NAS686A06K	MS21059L06K
NAS686X08	MS21059-08
NAS686X08K	MS21059-08K
NAS686A08	MS21059L08
NAS686A08K	MS21059L08K
NAS686X3	MS21059-3
NAS686X3K	MS21059-3K
NAS686A3	MS21059L3
NAS686A3K	MS21059L3K
NAS686X4	MS21059-4
NAS686X4K	MS21059-4K
NAS686A4	MS21059L4
NAS686A4K	MS21059L4K
NAS686X5	MS21059-5
NAS686X5K	MS21059-5K
NAS686A5	MS21059L5
NAS686A5K	MS21059L5K
NAS686X6	MS21059-6
NAS686A6	MS21059L6

CANCELLED PART NUMBERS	SUBSTITUTIVE PART NUMBERS
NAS1031X04	MS21059-04
NAS1031X04K	MS21059-04K
NAS1031A04	MS21059L04
NAS1031A04K	MS21059L04K
NAS1031X06	MS21059-06
NAS1031X06K	MS21059-06K
NAS1031A06	MS21059L06
NAS1031A06K	MS21059L06K
NAS1031X08	MS21059-08
NAS1031X08K	MS21059-08K
NAS1031A08	MS21059L08
NAS1031A08K	MS21059L08K
NAS1031X3	MS21059-3
NAS1031X3K	MS21059-3K

CANCELLED PART NUMBERS	SUBSTITUTIVE PART NUMBERS
NAS1031A3	MS21059L3
NAS1031A3K	MS21059L3K
NAS1031X4	MS21059-4
NAS1031X4K	MS21059-4K
NAS1031A4	MS21059L4
NAS1031A4K	MS21059L4K
NAS1031X5	MS21059-5
NAS1031X5K	MS21059-5K
NAS1031A5	MS21059L5
NAS1031A5K	MS21059L5K
NAS1031X6	MS21059-6
NAS1031A6	MS21059L6
NAS1031X7	MS21059-7
NAS1031A7	MS21059L7
NAS1031X8	MS21059-8
NAS1031A8	MS21059L8

PREPARING ACTIVITY: DLA-IS
CUSTODIANS: ARMY - AV NAVY - AS
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