

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 DODSS 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

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

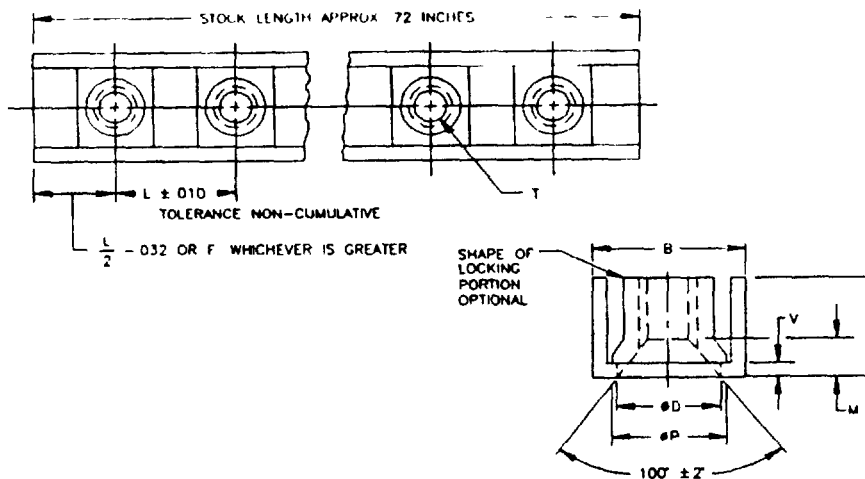


TABLE I DASH NUMBERS AND DIMENSIONS

FIRST DASH NUMBER		T THREAD SIZES	B MAX	ØD MIN	F MIN	H 1/2 MAX	L MIN SPACING AVAILABLE	M REF	ØP 2/2 MAX	MIN	V MAX	AXIAL STRENGTH LBS/MIN	WEIGHT	
NON-DRY FILM LUBRICANT	DRY FILM LUBRICANT												NUT ELEMENTS LBS/100	CHANNEL LBS/INCH
-08	L08	164-32 UNJC-3B	593	360	406	272	750	084	491	385	035	1 720	24	0080
-3	L3	190-32 UNJF-3B	593	406	406	281	750	093	491	431	035	2 460	26	0080
-4	L4	250-28 UNJF-3B	874	509	562	340	1 000	107	620	560	045	4 580	60	0100

- 1/ "H" MAX APPLIES TO NUT ELEMENT AND CHANNEL MIN "H" NOT SPECIFIED LIMITED ONLY BY STRENGTH REQUIREMENTS OF SPECIFICATION
2/ HOLE IN CHANNEL MUST PROVIDE FOR FULL FLOAT OF NUT ELEMENT BUT NEED NOT BE CIRCULAR

TABLE II DASH NUMBERS AND DIMENSIONS

SECOND DASH NUMBER	L NUT ELEMENT SPACING	MAXIMUM NUMBER OF NUT ELEMENT
-5	625	115
-6	750	96
-7	875	82
-8	1 000	72
-9	1 125	64
-10	1 250	57
-11	1 375	52
-12	1 500	48
-13	1 625	44
-14	1 750	41
-15	1 875	38
-16	2 000	36
-18	2 250	32
-20	2 500	28
-24	3 000	24

(G) DENOTES CHANGE(S)

INCH-POUND

PREPARING ACTIVITY DLA-15 CUSTODIANS ARMY- AV NAVY AS AIR FORCE 11 DLA REVIEW CR MI 82 PROJECT NUMBER 5310-1954	MILITARY SPECIFICATION SHEET TITLE NUT SELF-LOCKING GANG CHANNEL 100° CSK FLOATING LOW HEIGHT STEEL 125 KSI Ftu 450°F	SPECIFICATION SHEET NUMBER MS21067 15 APR 84 REV G SUPERSEDING MS21067 F 30 SEP 87 (SEE NOTE 5) AMSC N/A FSC 5310
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REQUIREMENTS

1. MATERIAL

NUT ELEMENT CARBON STEEL COMPOSITIONS 1015 (UNS G10150) 1040 (UNS G10400) AND 1050 (UNS G10500) IN ACCORDANCE WITH ASTM A29 ASIM A827 OR QQ-S-700 1042 (UNS G10420) IN ACCORDANCE WITH ASTM A29 ALLUOY STEEL GRADES 4130 (UNS G41300) 4340 (UNS G43400) AND 8740 (UNS G87400) IN ACCORDANCE WITH ASTM A29 CHANNEL - CORROSION RESISTANT STEEL TYPE A286 (UNS S66286) IN ACCORDANCE WITH AMS5525 AMS5732 OR AMS5737 TYPE 321 (UNS S32100) IN ACCORDANCE WITH AMS 5510

2. LENGTH TO BE STOCKED IN 72-INCH LENGTHS ONLY

3. FINISH NUT ELEMENTS - CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416 TYPE II CLASS 2 DRY FILM LUBRICATED NUT ELEMENTS IN ACCORDANCE WITH QQ-P-416 TYPE AND CLASS ARE OPTIONAL IF THE NUT ELEMENTS WILL MEET THE SALT SPRAY REQUIREMENTS OF QQ-P-416 TYPE II CHANNEL - PLAIN (PASSIVATED)

4. LUBRICANT DRY FILM LUBRICANT ON NUT ELEMENT ONLY APPROVED IN ACCORDANCE WITH MIL-N-25027 NON-DRY FILM LUBRICANTS SHALL BE SOLUBLE IN THE CLEANER SPECIFIED IN MIL-S-8802

5. DIMENSIONING AND TOLERANCING DIMENSIONING AND TOLERANCING SHALL BE IN ACCORDANCE WITH ANSI Y14.5M

6. HARDNESS NUT ELEMENTS SHALL HAVE A HARDNESS OF 49HRC MAX

7. THREADS THREADS BEFORE LUBRICATION IN ACCORDANCE WITH MIL-S 8879

8. SURFACE TEXTURE SURFACE TEXTURE UNLESS OTHERWISE SPECIFIED SHALL NOT EXCEED 125 MICROINCHES IN ACCORDANCE WITH ANSI/ASME B46.1

9. FLOAT OF NUT ELEMENT FLOAT OF NUT ELEMENT PORTION OF ASSEMBLY SHALL NOT BE LESS THAN .030 NOR MORE THAN .040 LONGITUDINALLY AND NOT LESS THAN .010 NOR MORE THAN .030 LATERALLY FROM CENTERED POSITION NUT ELEMENT SHALL BE CAPABLE OF ENGAGEMENT WITH A BOLT IN THE MAXIMUM MISALIGNMENT POSITION MAXIMUM AXIAL FLOAT .020 INCH FOR -.08 AND -.3 .030 FOR -.4

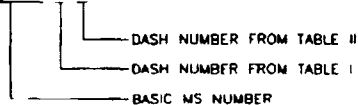
10. ASSEMBLY THE ASSEMBLY SHALL PROVIDE A BEARING SURFACE FOR THE NUT ELEMENT WITHIN THE HOUSING THE CENTERLINE OF THE CHANNEL SHALL NOT DEVIATE FROM A STRAIGHT LINE BY MORE THAN .015 IN ANY 12 INCHES THE NUT ELEMENT AND BASE PORTION OF THE ASSEMBLY SHALL FORM ONE INTEGRAL UNIT

11. EDGES BREAK SHARP CORNERS AND REMOVE ALL BURRS

12. CODE FIRST DASH NUMBER DESIGNATES THREAD SIZE SECOND DASH NUMBER DESIGNATES NUT ELEMENT SPACING IN EIGHTHS OF AN INCH THIRD DASH NUMBER INDICATES NUMBER OF NUT ELEMENTS WHEN LESS THAN STOCK LENGTH (APPROX 72 INCHES) IS DESIRED LETTER "L" BEFORE FIRST DASH NUMBER DESIGNATES DRY FILM LUBRICATED NUT ELEMENTS

13. PART NUMBER THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE I AND TABLE II AND A THIRD DASH NUMBER IF SPECIFIED (SEE REQUIREMENT 12)

EXAMPLE MS21067-3-6



MS21067-3-8 INDICATES NUT SELF-LOCKING GANG CHANNEL 100 CSK FLOATING LOW HEIGHT STEEL 125 KSI Flu 450 F GANG CHANNEL ASSEMBLY CONSISTING OF NINETY-SIX 190-32 UNJF-3B CADMIUM PLATED NUT ELEMENTS SPACED AT 750 INCH

MS21067L4-7-10 INDICATES NUT SELF-LOCKING GANG CHANNEL 100 CSK FLOATING LOW HEIGHT STEEL 125 KSI Flu 450 F GANG CHANNEL ASSEMBLY CONSISTING OF TEN 250-28 UNJF-3B CADMIUM PLATED DRY FILM LUBRICATED NUT ELEMENTS SPACED AT 875 INCH

PREPARING ACTIVITY DIA-15 CUSTODIANS ARMY- AV NAVY- AS AIR FORCE-11 DIA- REVIEW CR, MI 82 PROJECT NUMBER 5310-1954		MILITARY SPECIFICATION SHEET TITLE NUT SELF-LOCKING GANG CHANNEL 100 CSK FLOATING LOW HEIGHT STEEL 125 KSI Flu 450 F		SPECIFICATION SHEET NUMBER MS21067 15 APR 94 REV G SUPERSEDING MS21067 F 30 SEP 87 (SEE NOTE 5) AMSC- N/A FSC 5310	
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FORMS PREVIOUS EDITIONS ARE OBSOLETE

NOTES

- 1 ALL DIMENSIONS ARE IN INCHES. DIMENSIONS TO BE MET PRIOR TO LUBRICATION.
- 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 STRENGTHS 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 MS21067 SUPERSEDES NAS 693 THRU 695 NAS 1039 THRU 1041 IN PART.

INTERCHANGEABILITY RELATIONSHIP

MS21067 NUTS CAN UNIVERSALLY REPLACE NAS693 THRU NAS1041 NUTS OF LIKE THREAD SIZE. LUBRICANT (DRY FILM OR NON-DRY FILM) PLATING, NUT ELEMENT SPACING, NUMBER OF NUT ELEMENTS AND MATERIAL, BUT THESE NAS693 THRU NAS1041 NUTS CANNOT UNIVERSALLY REPLACE MS21067 NUTS.

INTERCHANGEABILITY TABLE

CANCELLED PART NUMBERS ^{1/}		SUBSTITUTIVE PART NUMBERS ^{1/}
NAS693AX	NAS1039AX	MS21067-08
NAS694AX	NAS1040AX	MS21067-3
NAS695AX	NAS1041AX	MS21067-4
NAS693A	NAS1039A	MS21067L08
NAS694A	NAS1040A	MS21067L3
NAS695A	NAS1041A	MS21067L4

^{1/} NUT ELEMENT SPACING DASH NUMBER IS IDENTICAL FOR BOTH CANCELLED AND CORRESPONDING SUBSTITUTIVE PART NUMBERS.

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