

0-09-03

FED. SUP. CLASS
5310

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REVIEWER ACTIVITIES:
AIR FORCE-82
DLA-IS

USER ACTIVITIES:
ARMY-CR, MI

Ⓕ ENTIRE STANDARD REVISED

P.A. NAVY-AS Other Cust ARMY-AV AIR FORCE-II	INTERNATIONAL INTEREST	TITLE NUT, SELF LOCKING, PLATE, TWO LUG, REDUCED RIVET SPACING, LOW HEIGHT, CRES, 125KSI Ft _u , 450°F. 8.800°F
PROCUREMENT SPECIFICATION MIL-N-25027	SUPERSEDES: NAS 697	

MILITARY STANDARD
MS21070

PAGE 1 OF 2

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

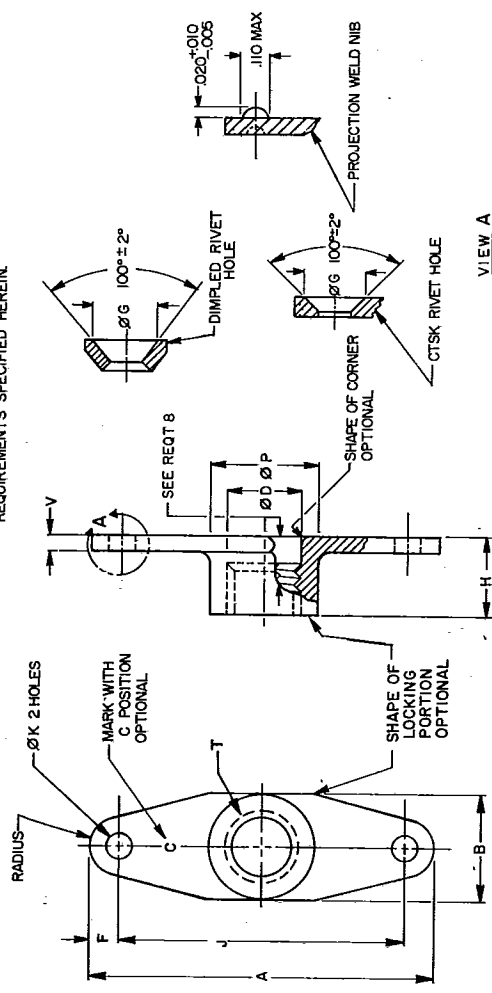


TABLE 1. DASH NUMBERS AND DIMENSIONS

DASH NUMBERS	450°		800°		T THREAD SIZES	A MAX	B		D MIN	E MIN	F MIN	G MIN	H MAX	J MIN	K MIN	P MAX	V MAX	AXIAL STRENGTH LBS/MIN	WEIGHT LBS/100
	PLAIN HOLES	WELDING PROTECTION	PLAIN HOLES	WELDING PROTECTION			MAX	MIN											
102	—	102W	—	—	.086-56 UNJC-3B	.410	.162	.140	—	.071	.071	.071	.110	.250	.066	.130	.035	440	.05
103	—	103W	—	—	.099-48 UNJC-3B	.425	.184	.140	—	.071	.071	.071	.125	.265	.066	.143	.035	550	.08
104	104K	104W	—	—	.112-40 UNJC-3B	.630	.260	.140	—	.089	.089	.089	.143	.406	.098	.166	.040	750	.11
106	106K	106W	—	—	.138-32 UNJC-3B	.661	.265	.195	—	.089	.089	.089	.171	.437	.098	.206	.047	1,130	.14
108	108K	108W	—	—	.164-32 UNJC-3B	.692	.297	.230	.168	.100	.100	.100	.250	.468	.098	.248	.047	1,720	.18
13	13K	13W	—	—	.190-32 UNJC-3B	.724	.328	.298	.194	.100	.100	.100	.250	.500	.098	.274	.047	2,460	.26
14	14K	14W	—	—	.250-28 UNJC-3B	.786	.414	.380	.254	.100	.100	.100	.281	.562	.098	.344	.055	4,580	.40
15	15K	15W	—	—	.3125-24 UNJC-3B	1.006	.505	.475	.317	.125	.125	.125	.328	.718	.130	.417	.065	7,390	.77
16	—	16W	—	—	.375-24 UNJC-3B	1.116	.614	.580	.379	.125	.125	.125	.344	.828	.130	.505	.075	11,450	1.86

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 NOT AS DETERMINED BY THE RIVET HOLES BY MORE THAN .005.
3/ DIMENSIONED RIVET HOLE TOLERANCE FOR Ø "K" IS +.015 -.000.
4/ SPACE WILL NOT PERMIT CORROSION.

DD FORM 672-1 (COORDINATED)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

5310-1541

APPROVED 6 APR 64 REVISED 30 SEP 87

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REQUIREMENTS:

1. **MATERIAL:** CORROSION RESISTANT STEEL, TYPE A286, (UNS S66286) IN ACCORDANCE WITH AMS5525, AMS5732 OR AMS5737.
2. **FINISH:** ONLY 800°F NUTS: SILVER PLATE ALL THREADED SURFACES OF NUT ELEMENT IN ACCORDANCE WITH AMS 2410. THREADS SHALL SHOW COMPLETE COVERAGE. SILVER PLATING ON ALL OTHER SURFACES OPTIONAL. TARNISHING OR DISCOLORATION OF SILVER NOT CAUSE FOR REJECTION.
3. **LUBRICANT:** ONLY 450°F NUTS: DRY FILM LUBRICANT IN ACCORDANCE WITH MIL-N-25027.
4. **DIMENSIONING AND TOLERANCING:** DIMENSIONING AND TOLERANCING SHALL BE IN ACCORDANCE WITH ANSI Y14.5M.
5. **HARDNESS:** 49HRC, MAX.
6. **THREADS:** THREADS BEFORE LUBRICATION IN ACCORDANCE WITH MIL-S-8879.
7. **SURFACE TEXTURE:** SURFACE TEXTURE, UNLESS OTHERWISE SPECIFIED, SHALL NOT EXCEED 125 MICROINCHES, IN ACCORDANCE WITH ANSI B46.1.
8. **COUNTERBORE/COUNTERSINK:** ON SIZE .164 AND LARGER, THREAD RELIEF SHALL BE .062 MINIMUM; ON SIZE .138 AND SMALLER, COUNTERSINK TO "P" DIAMETER.
9. **PERFORMANCE:** SEE PROCUREMENT SPECIFICATION, EXCEPT 450°F DRY FILM LUBRICATED NUTS LIMITED TO FIVE REUSE CYCLES.
10. **PART NUMBER:** THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE I.

EXAMPLE: MS21070LAW

DASH NUMBER

BASIC MS NUMBER

MS21070LAW INDICATES: NUT, SELF-LOCKING, PLATE, TWO LUG, REDUCED RIVET SPACING, LOW HEIGHT, CRES; 125 KSI Ftu, 450°F DRY FILM LUBRICATION; .250-28 UNF-3B; WELDING PROJECTION.

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.

INTERCHANGEABILITY RELATIONSHIP

MS21070 NUTS CAN UNIVERSALLY REPLACE NAS697 NUTS OF LIKE MATERIAL, THREAD SIZE, LUBRICANT (DRY FILM OR NON-DRY FILM LUBRICANT), AND FASTENING METHOD (PLAIN RIVET HOLES; DIMPLED OR COUNTERSUNK RIVET HOLES), BUT THESE NAS697 NUTS CANNOT UNIVERSALLY REPLACE MS21070 NUTS.

INTERCHANGEABILITY TABLE

CANCELLED PART NUMBERS	SUBSTITUTIVE PART NUMBERS	CANCELLED PART NUMBERS	SUBSTITUTIVE PART NUMBERS
NAS697C02	MS21070-02	NAS697C6	MS21070-6
NAS697C02M	MS21070L02	NAS697C6M	MS21070L6
NAS697C03	MS21070-03	NAS697A3K	
NAS697C03M	MS21070L03	NAS697X4	
NAS697C04L	MS21070-04	NAS697X4K	
NAS697C04LM	MS21070L04	NAS697A4	
NAS697C06L	MS21070-06	NAS697A4K	
NAS697C06LM	MS21070L06	NAS697X5	
NAS697C08	MS21070-08	NAS697X5K	
NAS697C08M	MS21070L08	NAS697A5	
NAS697C3	MS21070-3	NAS697A5K	
NAS697C3M	MS21070L3	NAS697X6	
NAS697C4	MS21070-4		
NAS697C4M	MS21070L4		
NAS697C5	MS21070-5		
NAS697C5M	MS21070L5		

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APPROVED 6 APR 64 REVISED (E) FOR CHANGES SEE PAGES I AND 2