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 UNFR ACTIVITIES ARMY-CR, MI
 REVIEWER ACTIVITIES AIR FORCE-82
 DLA-IS

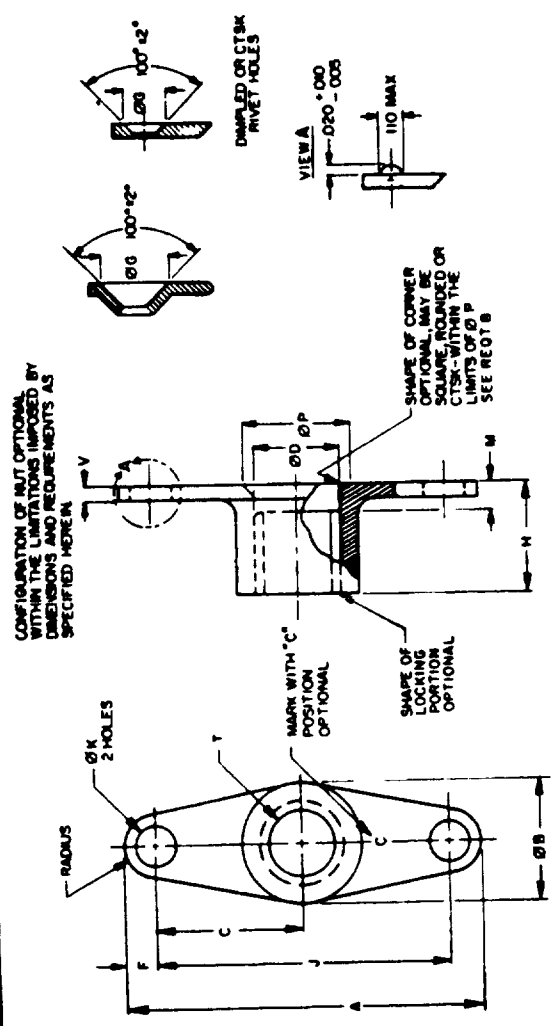


TABLE I DIMENSIONS AND DIMENSIONS

SSTY TYPE OF PLAIN HOLE	DIMENSIONS		T TENSILE SIZE	A HOLE DIA	Ø HOLE DIA	C HOLE DIA	Ø D HOLE DIA	T HOLE DIA	Ø C HOLE DIA	H HOLE DIA	Ø P HOLE DIA	V HOLE DIA	ALIAL STRENGTH LB/IN ²	REF/OT LB/IN ²	
	WELDING PROJECTION	PLAIN HOLES													
L04	L08H	-04	117-40 UNAC-30	948	200	195	344	100	200	141	648	090	164	750	14
L06	L08H	-06	118-12 UNAC-30	948	205	279	344	100	200	171	648	090	206	1,130	18
L08	L08H	-08	144-12 UNAC-30	948	277	277	144	100	200	250	648	090	248	1,720	24
L10	L10H	-10	190-12 UNAC-30	948	330	308	144	100	200	250	648	090	274	2,460	24
L12	L12H	-12	250-20 UNAC-30	1,240	414	375	500	100	200	281	1,000	090	344	4,900	31
L14	L14H	-14	317-24 UNAC-30	1,292	505	485	500	125	230	328	1,000	130	417	7,390	40
L16	L16H	-16	375-24 UNAC-30	1,292	614	594	500	125	230	344	1,000	130	467	11,650	46
L18	L18H	-18	437-20 UNAC-30	1,402	726	695	6	156	230	390	1,275	161	602	15,850	54
L20	L20H	-20	500-20 UNAC-30	1,402	859	796	62	156	230	609	1,750	16	640	21,110	60
L22	L22H	-22	562-18 UNAC-30	1,727	951	902	648	156	230	658	1,775	161	682	26,910	70
L24	L24H	-24	625-18 UNAC-30	1,812	1,016	944	750	156	230	765	1,500	161	746	34,130	80

1. MINIMUM "H" NOT SPECIFIED LIMITED ONLY BY STRENGTH REQUIREMENTS IF SPECIFICATED
 2. CENTER OF THE CHAMFERED HOLES SHALL NOT DEVIATE IN ANY DIRECTION FROM THE CENTER OF THE PLATE BUT AS ESTABLISHED BY THE RIVET HOLES BY THESE DIMENSIONS
 3. CHAMFERED RIVET HOLE TOLERANCE FOR Ø P = .015 + 0.01

(F) ENTIRE STANDARD REVISED

P A NAVY-AS
 Other Cmt
 AIR FORCE-AV
 AIR FORCE-11

INTERNATIONAL INTEREST

TITLE
**NUT, SELF-LOCKING, PLATE, TWO LUG,
 LOW HEIGHT, CRES, 125KSI FtU,
 450° AND 800°F**

PROCUREMENT SPECIFICATION
 MIL-N-25027

SUPERSEDES
 AN362, AN366, NAS680, NAS1023 IN PART

MILITARY STANDARD
MS21048

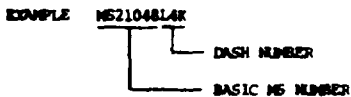
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8310-1532

APPROVED 12 JUN 64
 REVISED (F) 30 SEP 87

REQUIREMENTS

1. **MATERIAL** CORROSION RESISTANT STEEL, TYPE A286, (UNS S46286, IN ACCORDANCE WITH AM5525, AM5732 OR AM5737
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 DRAINING 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** 49HR, 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, COUNTERBORE TREAD "D" DIAMETER X .062 DEEP MINIMUM TREAD RELIEF, ON SIZE 138 AND SMALLER, COUNTERSINK TO "P" DIAMETER WITHIN THE LIMITS OF D, P AND M.
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 NS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE I



MS21048L4K INDICATES NUT, SELF-LOCKING, PLATE, TWO LUG, LOW HEIGHT, CRES, 125 KSI Ft_u, 450°F, DRY FILM LUBRICATION, 250-28 UNUP-3B, COUNTERSINK 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 CPL 25027 SHALL BE USED

USER ACTIVITIES
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APPROVED 12 JUN 64 REVISED (F) FOR CHANGES SEE PAGES 1, 2 AND 3

NAVY-AS <small>Other Code</small> ARMY-AV AIR FORCE-II	INTERNATIONAL DIFFERENT	TITLE NUT, SELF-LOCKING, PLATE, TWO LUG, LOW HEIGHT, CRES, 125 KSI Ft _u , 450° AND 800° F	MILITARY STANDARD
			MS21048
PROCUREMENT SPECIFICATION MIL-N-25027	SUPERSEDES AN362, AN366, NAS680, NAS1023 IN PART	PAGE 2 OF 3	

INTERCHANGEABILITY RELATIONSHIP

MS21048 NUTS CAN UNIVERSALLY REPLACE AN062, AN066, NAS680 AND NAS1023 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 OR PROJECTION WELDING), BUT THESE AN062, AN066, NAS680 AND NAS1023 NUTS CANNOT UNIVERSALLY REPLACE MS21048 NUTS

INTERCHANGEABILITY TABLE

CANCELLED PART NUMBER	SUBSTITUTIVE PART NUMBER	CANCELLED PART NUMBER	SUBSTITUTIVE PART NUMBER
NAS1023CD4	MS21048-04	NAS1023C6	MS21048-6
NAS1023CD4K	MS21048-04K	NAS1023CDM	MS21048-6M
NAS1023CD4W	MS21048-04W	NAS1023C7	MS21048-7
NAS1023CD6	MS21048-06	NAS1023C7W	MS21048-7W
NAS1023CD6K	MS21048-06K	NAS1023C8	MS21048-8
NAS1023CD6W	MS21048-06W	NAS1023C8M	MS21048-8M
NAS1023CD8	MS21048-08	NAS1023C9	MS21048-9
NAS1023CD8K	MS21048-08K	NAS1023C9M	MS21048-9M
NAS1023CD8W	MS21048-08W	NAS1023C10	MS21048-10
NAS1023C3	MS21048-3	NAS1023C10W	MS21048-10W
NAS1023C3K	MS21048-3K	---	---
NAS1023C3M	MS21048-3M	---	---
NAS1023C4	MS21048-4	---	---
NAS1023C4K	MS21048-4K	---	---
NAS1023C4M	MS21048-4M	---	---
NAS1023C5	MS21048-5	---	---
NAS1023C5K	MS21048-5K	---	---
NAS1023C5M	MS21048-5M	---	---

USER ACTIVITIES
ARMY-CR,MI

INTERCHANGEABILITY TABLE

CANCELLED PART NUMBERS			SUBSTITUTIVE PART NUMBERS	CANCELLED PART NUMBERS			SUBSTITUTIVE PART NUMBERS
---	---	NAS680C4	MS21048-04	---	---	NAS680C3M	MS21048L3
---	---	NAS680C4K	MS21048-04K	---	---	NAS680C3M	MS21048L3K
---	---	---	MS21048-04W	---	---	---	MS21048L3W
---	---	NAS680C4M	MS21048L04	AN062C428	AN066MCI032	NAS680C4	MS21048-4
---	---	NAS680C4W	MS21048L04K	---	---	NAS680C4K	MS21048-4K
---	---	---	MS21048L04M	AN062MCA28	---	---	MS21048-4M
---	---	NAS680C6	MS21048-06	---	---	---	MS21048L4W
AN062C632	---	NAS680C6K	MS21048-06K	---	AN066MCA28B	---	MS21048L4
---	---	---	MS21048-06W	---	---	NAS680C4M	MS21048L4K
AN062MCS32	---	NAS680C6M	MS21048L06	---	---	NAS680C4M	MS21048L4M
---	AN066MCS32B	---	MS21048L06K	---	---	NAS680C4M	MS21048L4M
---	---	NAS680C6W	MS21048L06W	AN062C524	---	NAS680C5	MS21048-5
---	---	---	MS21048L06W	---	---	NAS680C5K	MS21048-5K
---	AN066MCS32	NAS680C8	MS21048L08	AN062MCS24	---	NAS680C5M	MS21048-5M
AN062C832	---	NAS680C8K	MS21048-08	---	---	NAS680C5M	MS21048L5
---	---	---	MS21048-08K	---	---	NAS680C5M	MS21048L5K
AN062MCS32	---	---	MS21048-08W	---	---	NAS680C5M	MS21048L5M
---	AN066MCS32B	---	MS21048L08M	AN062C624	AN066MCS24	NAS680C6	MS21048-6
---	---	NAS680C8M	MS21048L08	---	---	---	MS21048-6M
---	---	NAS680C8M	MS21048L08K	AN062MCS24	---	NAS680C6M	MS21048L6
---	AN066MCS32	---	MS21048L08W	---	---	---	MS21048L6M
AN062CI032	---	NAS680C3	MS21048-3	---	---	NAS680C7	MS21048-7
---	---	NAS680C3K	MS21048-3K	---	---	---	MS21048-7M
AN062MCI032	---	---	MS21048-3M	---	---	---	MS21048L7
---	AN066MCI032B	---	MS21048L3M	---	---	---	MS21048L7M

REVIEWS ACTIVITIES
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MILITARY STANDARD
MS21048
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