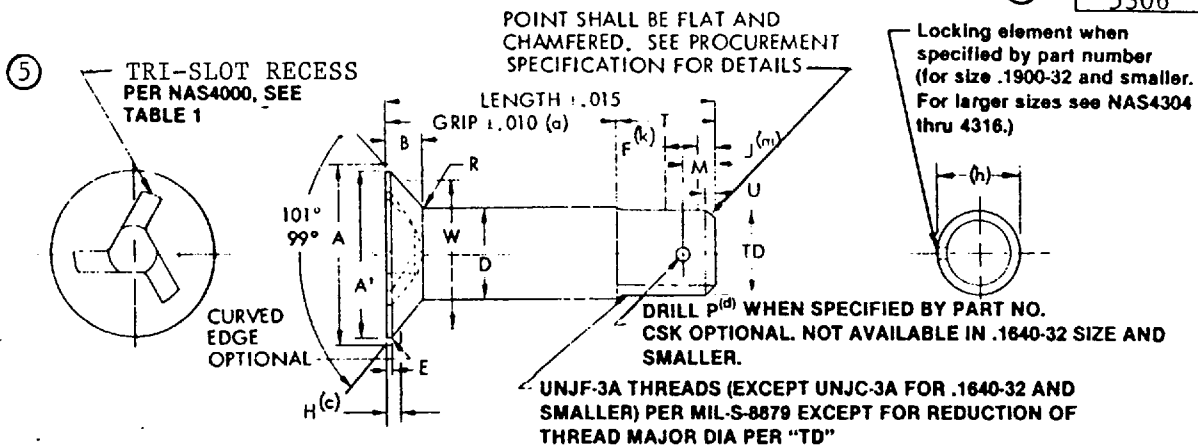


NATIONAL AEROSPACE STANDARD

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC., 1725 DE SALES STREET, N.W., WASHINGTON, D. C. 20036

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Head marking shall be depressed (.010 Max) and arranged as follows:

- | | |
|----------------------|--|
| First Sector | <ul style="list-style-type: none"> Mark with basic number ("NAS" optional), except mark .1120-40 size with "4", .1380-32 size with "8", .1640-32 size with "8", and (optional) .1900-32 size with "10". These sizes also to be marked "V" for Titanium. |
| Second Sector | <ul style="list-style-type: none"> Mark with manufacturer's symbol (symbol location optional in any sector), grip dash number and "D", "L" or "P" when applicable.(1) "D" identifies bolt with drilled shank. "L" identifies bolt with optional locking element. "P" identifies bolt with patch type locking element only. |
| Third Sector | <ul style="list-style-type: none"> Mark with recess dash number, encircled. Recess number should be approximately 25% larger than other numerals in head marking. |

TABLE I DIMENSIONS (CONTINUED ON SHEET 2)

BASIC NUMBER ..	NOM THREAD SIZE	A DIA MAX (b)	A' ABSO- LUTE MIN DIA (b)	B MAX (b)	D DIA, UNPLATED		D DIA, Plated or Coated				TRI-SLOT RECESS NUMBER	H GAGE PROTRUSION (c)	
					MAX	MIN	BEFORE		AFTER			NOM	±TOL
							MAX	MIN	MAX	MIN			
NAS4800	.1120-40	.226	.193	.044	.1115	.1110	.1107	.1101	.1115	.1105	NAS4000- 2	.0202	.0010
4801	.1380-32	.280	.246	.061	.1375	.1370	.1367	.1361	.1375	.1365	- 3	.0232	.0011
4802	.1640-32	.331	.296	.072	.1635	.1630	.1627	.1621	.1635	.1625	- 4	.0186	.0012
4803	.1900-32	.381	.336	.082	.1895	.1890	.1887	.1881	.1895	.1885	- 5	.0210	.0013
4803J	.1900-32	.381	.336	.082	.1895	.1890	.1887	.1881	.1895	.1885	- 4J	.0210	.0013
4804	.2500-28	.508	.456	.111	.2495	.2490	.2487	.2481	.2495	.2485	- 6	.0299	.0015
4805	.3125-24	.635	.575	.138	.3120	.3115	.3112	.3106	.3120	.3110	- 7	.0354	.0017
4806	.3750-24	.763	.692	.166	.3745	.3740	.3737	.3731	.3745	.3735	- 8	.0414	.0019
4807	.4375-20	.889	.810	.193	.4370	.4365	.4362	.4356	.4370	.4360	- 9	.0435	.0021
4808	.5000-20	1.016	.928	.221	.4995	.4990	.4987	.4981	.4995	.4985	-10	.0496	.0023
4809	.5625-18	1.144	1.047	.249	.5615	.5610	.5607	.5601	.5615	.5605	-11	.0556	.0025
4810	.6250-18	1.276	1.169	.279	.6240	.6235	.6232	.6226	.6240	.6230	-12	.0649	.0027
4812	.7500-16	1.531	1.406	.334	.7490	.7485	.7482	.7476	.7490	.7480	-13	.0738	.0031
4814	.8750-14	1.768	1.644	.390	.8740	.8735	.8732	.8726	.8740	.8730	-14	.0840	.0035
4816	1.0000-12	2.043	1.882	.446	.9990	.9985	.9982	.9976	.9990	.9980	-15	.0950	.0039

****The last two digits of the basic number designate the size. See Sheet 3 for "D", "L", "P" and "U" codes. See Sheets 4 and 5 for grip dash numbers.**

INACTIVE FOR NEW DESIGN

AFTER JANUARY 1, 1986

NO SUPERSEDING STANDARD

⑤ FOR DESCRIPTION OF STATUS NOTES SEE NAS380
(a), (b) etc: See Notes on Sheet 3.

LIST OF CURRENT SHEETS

SHEET NO.	REV. NO.
1	5
2	4
3	4
4	2
5	1
6	4

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST DATE OF APPROVAL SHOWN HEREON.

Dec. 1968 REVISION ① 16 March 1970 ② 15 Feb. 1972 ③ 17 Dec. 1979 ④ 15 August 1985 ⑤ 29 March 1996

APPROVAL DATE

NATIONAL AEROSPACE STANDARD

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC., 1725 DE SALES STREET, N.W., WASHINGTON, D. C. 20036

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TABLE I DIMENSIONS (CONTINUED)

BASIC NUMBER	E MAX	F ^(h)	J ^(m)	M ± .010	P ^(d) + .010 - .000	R RAD		T ^(e) REF	TD DIA		U MAX	W GAGE DIA + .0002 - .0000	Y ^(f)	Z ^(g)
						MAX	MIN		MAX	MIN				
NAS4600	.010	.125	.075	-	-	.012	.005	.238	.1085	.1085	.031	.1740	.0045	.0040
4601	.010	.158	.094	-	-	.012	.005	.278	.1340	.1315	.038	.2208	.0045	.0040
4602	.012	.158	.094	-	-	.020	.010	.323	.1586	.1570	.038	.2830	.0045	.0040
4603	.015	.158	.094	.164	.070	.020	.010	.323	.184	.181	.038	.3270	.0045	.0040
4603J	.015	.158	.094	.164	.070	.020	.010	.323	.184	.181	.038	.3270	.0045	.0040
4604	.018	-	-	.170	.078	.020	.010	.370	.244	.241	.045	.4318	.0045	.0030
4605	.021	-	-	.182	.078	.025	.010	.438	.308	.302	.052	.5448	.0045	.0030
4606	.025	-	-	.183	.108	.030	.015	.454	.368	.364	.052	.6580	.0045	.0025
4607	.028	-	-	.199	.108	.030	.015	.528	.431	.428	.062	.7782	.008	.0025
4608	.031	-	-	.198	.108	.030	.015	.528	.483	.488	.062	.8900	.008	.0020
4609	.034	-	-	.207	.141	.030	.015	.584	.555	.550	.068	1.0028	.008	.0020
4610	.038	-	-	.207	.141	.030	.015	.628	.618	.612	.068	1.1122	.008	.0020
4612	.044	-	-	.222	.141	.030	.015	.686	.743	.737	.078	1.3438	.008	.0020
4614	.050	-	-	.241	.141	.030	.015	.758	.868	.861	.088	1.5730	.008	.0020
4616	.057	-	-	.264	.141	.030	.015	.895	.983	.988	.104	1.8024	.008	.0020

- ④ . PROCUREMENT SPECIFICATION: NAS4004, except as noted. Cold working of head to shank fillet is not required for NAS4600 thru 4603 bolts. Locking element for self-locking bolts: per MS15981 and MIL-F-18240, any type or configuration, including patch type, is optional when "L" code is specified. Patch type locking element (with no metal removed) is required when "P" code is specified. Locking element must be supplied by a qualified source listed in QPL18240 or approved for listing in QPL18240. Shipping notice should identify supplier of bolt and locking element separately.

INACTIVE FOR NEW DESIGN
AFTER JANUARY 1, 1986
NO SUPERSEDING STANDARD

(c), (d), etc: See Notes on Sheet 3.

NAS 4600 Documents
SH 2