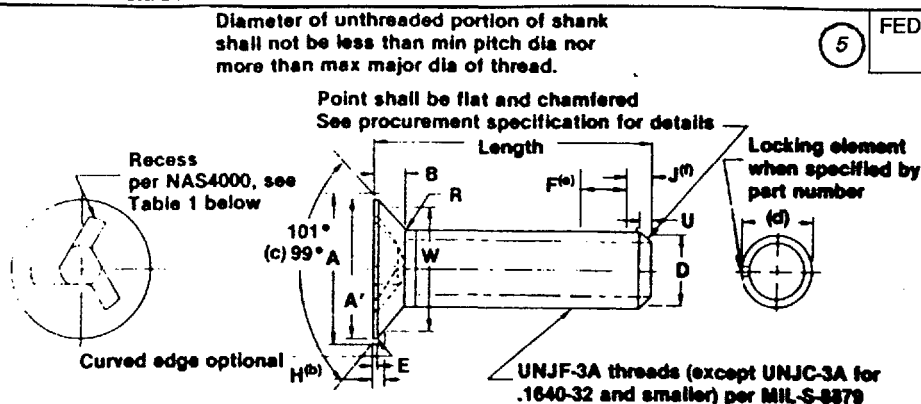


AIA/NAS NAS*5800 THRU*5806 94 0318743 0502129 T80

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1250 EYE STREET, N.W.
WASHINGTON, D.C. 20005

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.



5 FED SUP CLASS 5305

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

First Sector - 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.(g)
Second Sector - Mark with manufacturer's symbol (symbol location optional in any sector), length dash number and "L" or "P" when applicable. "L" identifies screw with optional locking element. "P" identifies screw with patch type locking element only.
Third Sector - Mark with recess dash number encircled. Recess number should be approximately 25% larger than other numerals in head marking.

THREAD LENGTH: Screws less than 2 dies in length - complete threads shall extend to within 2 pitches of bearing surface of head and incomplete threads may extend up to bearing surface. Screws 2 dies thru 2" in length - complete threads shall extend to within 2 pitches of tangency of "R" and incomplete threads may extend up to "R" fillet area. Screws longer than 2" - complete threads shall extend a min. of 1.75" from end of screw and incomplete threads may extend up to "R" fillet area.
INCOMPLETE THREADS: See NAS4004.

TABLE I DIMENSIONS (CONTINUED ON SHEET 2)

Basic Number	Nom Thread	A Dia Max (a)	A' Absolute Min Dia (a)	B Max (a)	D Dia Max	E Max	F(e)	Tri-Wing ^a Recess Number
NAS5800	.1120-40	.226	.193	.044	.112	.010	.125	NAS4000-2
NAS5801	.1380-32	.280	.246	.061	.138	.010	.156	NAS4000-3
NAS5802	.1640-32	.331	.296	.072	.164	.012	.156	NAS4000-4
NAS5803	.1900-32	.381	.338	.082	.190	.015	.156	NAS4000-5
NAS5803J	.1900-32	.381	.338	.082	.190	.015	.156	NAS4000-4J
NAS5804	.2500-28	.508	.456	.111	.250	.018	.178	NAS4000-6
NAS5805	.3125-24	.635	.575	.138	.312	.021	.208	NAS4000-7
NAS5806	.3750-24	.763	.692	.166	.375	.025	.208	NAS4000-8

**The last digit of the basic number designates the size. See Sheet 2 for "L", "P" and "U" codes.

MATERIAL: 6AL-4V Titanium alloy per AMS4928 or 4967. Locking element - plastic per MIL-F-18240 and QPL18240.
HEAT TREAT: 160 to 180KSI ultimate tensile.
FINISH: Unplated Screw - None.
Plated Screws - Cadmium plate per QQ-P-416, Type II, Class 2, except a nickel strike may be used prior to cadmium plating. Parts plated to Class 3 may be used until stock depleted.
Coated Screw - Aluminum coating per NAS4006.
Cadmium plated 6AL-4V titanium alloy screw shall be identified with red dye or paint on the thread end. Maximum coverage may include one chamfer plus one incomplete thread.

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

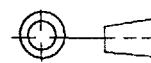
LIST OF CURRENT SHEETS

SHT.	REV.
1	5
2	5

(a), (b) etc: See notes on Sheet 2.

CUSTODIAN **NATIONAL AEROSPACE STANDARDS COMMITTEE**

THIRD ANGLE PROJECTION



PROCUREMENT SPECIFICATION

5

TITLE
SCREW, 100° HEAD, TRI-SLOT RECESS, 6AL-4V TITANIUM ALLOY, FULL THREAD, SELF-LOCKING AND NONLOCKING

CLASSIFICATION
STANDARD PART

NAS5800 THRU 5806
SHEET 1 OF 2

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APPROVAL DATE DECEMBER 1968 REVISION 1 16 MARCH 1970 2 15 FEB. 1972 3 17 DEC. 1979 4 15 AUGUST 1985 5 15 JULY 1994



TABLE I DIMENSIONS (CONTINUED)

BASIC NUMBER	H GAGE PROTRUSION (b)		J ^(f)	R RAD		U	W GAGE DIA + .0002 - .0000
	NOM	± TOL		MAX	MIN	MAX	
NAS5800	.0202	.0010	.075	.012	.002	.031	.1740
NAS5801	.0232	.0011	.094	.012	.002	.031	.2208
NAS5802	.0186	.0012	.094	.020	.010	.039	.2830
NAS5803	.0210	.0013	.094	.020	.010	.039	.3270
NAS5803J	.0210	.0013	.094	.020	.010	.039	.3270
NAS5804	.0299	.0015	.107	.020	.010	.045	.4318
NAS5805	.0354	.0017	.125	.025	.010	.052	.5449
NAS5806	.0414	.0019	.125	.030	.015	.052	.6580

TABLE II PREFERRED LENGTHS

Dash Numbers	*3	*4	*5	6	7	8	9	10	11	12	13	14
Length	.19	.25	.31	.38	.44	.50	.56	.62	.69	.75	.81	.88
Length Tol	+ .00, - .03											

Dash Numbers	15	16	18	20	22	24	26	28	30	32	34 to 96
Length	.94	1.00	1.12	1.25	1.38	1.50	1.62	1.75	1.88	2.00	2.12 to 6.00
Length Tol	+ .00, - .03										

*Dash 3 length is not practical for size .1900-32 and larger. Dash 4 length is not practical for size .2500-28 and larger. Dash 5 length is not practical for sizes .3125-24 and .3750-24.

Dash number indicates length in .0625 increments (rounded to two decimal places). Use of .25 inch increments is recommended for screws over 3 inches long. Intermediate or longer lengths may be specified by use of whole dash number only.

CODE: Basic part number indicates nonlocking, plated screw. See Table I.
Dash number indicates length. See Table II.
Add "A" after basic number for aluminum coated screws. May be used with "L" or "P" code.
Add "L" after basic number for self-locking screw with optional locking element (including patch type); See procurement spec below. Do not use with "P" code.
Add "P" after basic number for self-locking screw with patch type locking element only; see procurement spec below. Do not use with "L" code.
Add "U" after basic number for unplated screw. May be used with or without "L" or "P" code.
Add "J" as the fifth digit in basic four-digit part number for deep number 4J recess.

EXAMPLES OF PART NUMBERS:

NAS5803-10 = Screw, .1900-32 thread, .62 long, nonlocking, plated.
NAS5803A10 = Screw, .1900-32 thread, .62 long, nonlocking, aluminum coated.
NAS5803L10 = Screw, .1900-32 thread, .62 long, self-locking (optional type; see procurement spec below), plated.
NAS5803LU10 = Screw, .1900-32 thread, .62 long, self-locking (optional type), unplated.
NAS5803P10 = Screw, .1900-32 thread, .62 long, self-locking (patch type; see procurement spec below), plated.
NAS5803JA10 = Screw, .1900-32 thread, .62 long, nonlocking, aluminum coated, 4J recess.

NOTES:

- Dimensions A, A' and B are included for engineering reference only and are not to be used for inspection. Values A, A' and B are calculated limits resulting from tolerances on W, H, E and head angle.
- Dimensions for H gage protrusion shall be inspected per NAS527.
- Concentricity: Conical surface of head to thread pitch dia within .005 FIM. (5)
- Protrusion of locking element shall be controlled so that it will pass freely, or with finger pressure, through a ring gage with diameter of .010 (+ .001, - .000) greater than max major dia of screw thread.
- "F" min (5 thread pitches) = region of minimum engagement with female thread required to meet MIL-F-18240 requirements. Locking element within "F" region must develop required torque when tested per MIL-F-18240.
- For ease in starting, locking element shall not be effective in "J" area (3 thread pitches).
- "A" aluminum coated and "U" unplated codes need not appear on the head of the screw.

SURFACE TEXTURE:

- (5) (AA max per ANSI/ASME B46.1) head to shank fillet. Thread flanks and thread root 32; conical surface of head 63; other surfaces 125.

DIMENSIONS TO BE MET AFTER PLATING OR COATING.

DIMENSIONS IN INCHES.

PROCUREMENT SPECIFICATION:

NAS4004, except as noted. Cold working of head to shank fillet is not required for NAS5800 thru 5806 screws. Locking element for self-locking screws: 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" 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 screw and locking element separately.

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**NAS5800 THRU 5806
Documents**

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