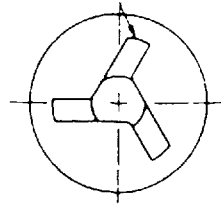


AIA/NAS NAS*5700 THRU*5706 94 0318743 0502127 108

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.

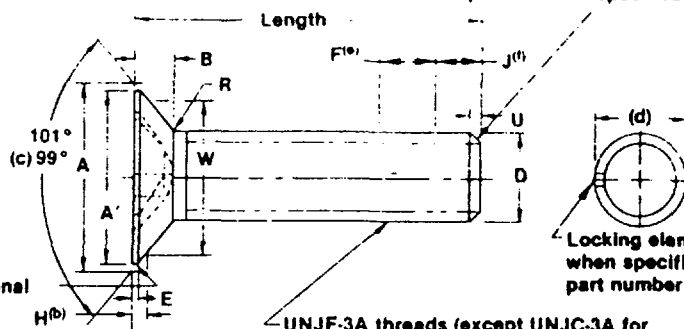
Recess per NAS4000, see Table 1 below



Curved edge optional

Diameter of unthreaded portion of shank shall not be less than min pitch dia nor more than max major dia of thread.

Point shall be flat and chamfered See procurement specification for details



Locking element when specified by part number

UNJF-3A threads (except UNJC-3A for .1640-32 and smaller) per MIL-S-8879

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 "6", .1640-32 size with "8", and (optional) .1900-32 size with "10". These sizes also to be marked "C" for A286.(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 dias 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 dias 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 1.75 min from end of screw and incomplete threads may extend up to "R" fillet area.
INCOMPLETE THREADS: See NAS4003.

TABLE 1 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(1)	Tri-Wing ¹ Recess Number
NAS5700	.1120-40	.226	.193	.044	.112	.010	.125	NAS4000-2
NAS5701	.1380-32	.280	.246	.061	.138	.010	.156	NAS4000-3
NAS5702	.1640-32	.331	.296	.072	.164	.012	.156	NAS4000-4
NAS5703	.1900-32	.381	.338	.082	.190	.015	.156	NAS4000-5
NAS5703J	.1900-32	.381	.338	.082	.190	.015	.156	NAS4000-4J
NAS5704	.2500-28	.508	.458	.111	.250	.018	.178	NAS4000-6
NAS5705	.3125-24	.635	.575	.138	.312	.021	.208	NAS4000-7
NAS5706	.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: A286 corrosion resistant steel with composition per AMS5731 or AMS5737. Locking element - plastic per MIL-F-18240 and QPL18240.

HEAT TREAT: 160 KSI ultimate tensile.

FINISH: Plated Screws - Cadmium plate per QQ-P-416, Type II, Class 2. Parts plated to Class 3 may be used until stock depleted. Embrittlement test per QQ-P-416 does not apply. Unplated Screws - Passivate to meet requirement of NAS4003. Coated screws aluminum coating per NAS4006. Cadmium plated A286 CRES screws shall be identified with green dye or paint on thread end. Maximum coverage may include chamfer plus one incomplete thread.

(b) etc: See notes on Sheet 2.

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

LIST OF CURRENT SHEETS

SHT.	REV.
1	5
2	5

CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE		THIRD ANGLE PROJECTION
PROCUREMENT SPECIFICATION NOTED ON SHEET 2	5 TITLE SCREW, 100° HEAD, TRI-SLOT RECESS, A286 CRES, FULL THREAD, SELF-LOCKING AND NONLOCKING	CLASSIFICATION STANDARD PART NAS5700 THRU 5706 SHEET 1 OF 2

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY CONFORMANCE OF ITEMS PROCURED UNDER NATIONAL AEROSPACE STANDARDS. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF ITEMS FOR ANY PARTICULAR APPLICATION, OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARK RIGHTS.

APPROVAL DATE DECEMBER 1988 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		J ^(f)	R		U	W GAGE DIA • 0002 - 0000
	PROTRUSION (b)			RAD			
	NOM	± TOL		MAX	MIN		
NAS5700	.0202	.0010	.075	.012	.002	.031	.1740
NAS5701	.0232	.0011	.094	.012	.002	.039	.2208
NAS5702	.0186	.0012	.094	.020	.010	.039	.2830
NAS5703	.0210	.0013	.094	.020	.010	.039	.3270
NAS5703J	.0210	.0013	.094	.020	.010	.039	.3270
NAS5704	.0299	.0015	.107	.020	.010	.045	.4318
NAS5705	.0354	.0017	.125	.025	.010	.052	.5449
NAS5706	.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 98	
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			+ .00, - .06							+ .00, - .09	

*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 "L" 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 "L" or "P" code.
Add "J" as the fifth digit in basic four-digit part number for the deep number 4 recess.

EXAMPLES OF PART NUMBERS:

NAS5703-10 = Screw, .1900-32 thread, .62 long, nonlocking, plated.
NAS5703A10 = Screw, .1900-32 thread, .62 long, nonlocking, aluminum coated.
NAS5703L10 = Screw, .1900-32 thread, .62 long, self-locking (optional type; see procurement spec below), plated.
NAS5703LU10 = Screw, .1900-32 thread, .62 long, self-locking (optional type), unplated.
NAS5703P10 = Screw, .1900-32 thread, .62 long, self-locking (patch type; see procurement spec below), plated.
NAS5703JA10 = 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.
- Magnetic permeability shall be less than 2.0 (Air = 1.0) for a field strength H = 200 oersteds using a magnetic permeability indicator per ASTM A342 or equivalent. ⑤

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:

NAS4003, except as noted. Cold working of head to shank fillet is not required for NAS5700 thru 5706 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.

**INACTIVE FOR NEW DESIGN
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**NAS5700 THRU 5706
SHEET 2**

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