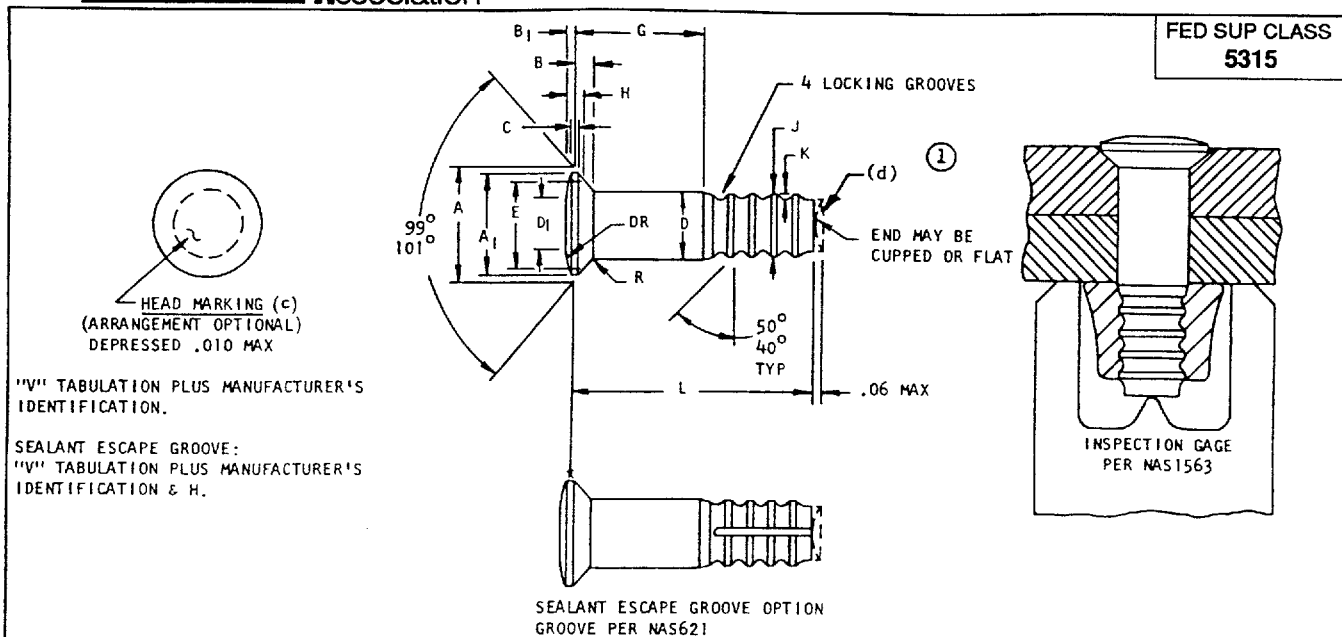


AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1250 EYE STREET, N.W.
WASHINGTON, D.C. 20005

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.



BASIC PART NUMBER	NOM SIZE	D SHANK DIA	D ₁ (a) DIA REF	DR (a) RAD REF	A (a) REF DIA	A ₁ (a) MIN DIA	B (a) REF	B ₁	C MAX	GAGE		J DIA	K	R RAD	V (c) HEAD MARKING	
										E (b) DIA +.0002 -.0000	H (b) PROTRUSION					
											NOM	±TOL				
NAS2325	.164	.1640 .1635	.125	.125	.252	.229	.036	.0155 .0185	.014	.2026	.0365	.0025	.159 .150	.012 .008	.020 .010	2325V
NAS2326	.190	.1895 .1890	.140	.203	.301	.269	.045	.0145 .0175	.017	.2439	.0378	.0028	.185 .175	.015 .011	.030 .020	2326V
NAS2328	.250	.2495 .2490	.188	.312	.401	.361	.061	.0175 .0205	.022	.3313	.0450	.0030	.242 .236	.018 .014	.030 .020	2328V
NAS2330	.312	.3120 .3115	.312	.188	.484	.440	.073	.0195 .0230	.026	.4045	.0550	.0035	.305 .293	.023 .017	.040 .030	2330V
NAS2332	.375	.3745 .3740	.375	.156	.579	.537	.086	.0360 .0400	.030	.4852	.0775	.0040	.368 .354	.027 .021	.040 .030	NAS2332V

- (a) DIMENSIONS A, A₁, B, D₁ & DR: INCLUDED FOR ENGINEERING REFERENCE PURPOSES ONLY, NOT FOR INSPECTION PURPOSES. VALUES A, A₁, B, D₁ & DR: CALCULATED LIMITS RESULTING FROM TOLERANCES ON B₁, C, D, E, H & HEAD ANGLE.
- (b) GAGE PROTRUSION (H): SEE NAS621 FOR THE RECOMMENDED PRACTICE FOR INSPECTING HEAD CHARACTERISTICS.
- (c) HEAD MARKING: "NAS" MAY BE INCLUDED IN HEAD MARKING AT OPTION OF FASTENER MANUFACTURER.
- (d) CHAMFER OR RADIUS PERMISSIBLE, .06 MAX.

MATERIAL: 6AL-4V TITANIUM ALLOY PER PROCUREMENT SPECIFICATION.

HEAT TREATMENT: MINIMUM SHEAR STRENGTH 95,000 PSI.

FINISH: NO PROTECTIVE FINISH REQUIRED.

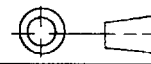
LUBRICATION: CHLORINE FREE CETYL ALCOHOL.

CODE: DASH NUMBER DESIGNATES NOMINAL GRIP IN .0625 INCREMENTS.
ADD "V" AFTER BASIC PART NUMBER FOR 6AL-4V TITANIUM ALLOY.
ADD "H" AFTER BASIC NUMBER WHEN SEALANT ESCAPE GROOVE IS REQUIRED.

LIST OF CURRENT SHEETS

SHT.	REV.
1	1
2	1

① INACTIVE FOR DESIGN AFTER OCT. 30, 1981.

CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE		THIRD ANGLE PROJECTION 
PROCUREMENT SPECIFICATION	TITLE	CLASSIFICATION
NAS621	BOLT-LOCK, TENSION, 100° CROWN HEAD, STUMP - TYPE, TITANIUM ALLOY	STANDARD PART
		NAS2325 THRU 2332
		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 QUALITY OF ITEMS FOR ANY PARTICULAR APPLICATION, OR (2) THE EXISTENCE OF OR APPLICABILITY THERETO OF PATENT OR TRADEMARK RIGHTS.

NATIONAL AEROSPACE STANDARD

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

EXAMPLES OF PART NUMBERS:

NAS2326V08 = .190 DIA 6AL-4V TITANIUM ALLOY PIN, 100° CROWN HEAD, STUMP TYPE, .500 GRIP.

NAS2326VH08 = .190 DIA 6AL-4V TITANIUM ALLOY PIN, 100° CROWN HEAD, SEALANT ESCAPE GROOVE, STUMP TYPE, .500 GRIP.

- NOTES: 1. DIMENSIONS IN INCHES.
 2. FOR RECOMMENDED HOLE SIZES, SEE NAS618.
 3. FOR COLLAR SELECTION, MINIMUM TENSILE STRENGTH, AND INSPECTION GAGE, SEE NAS1080.

DASH NUMBER	NOM GRIP	GRIP RANGE		+.015 G -.010	L + .015, -.005				
		MIN	MAX		.164 DIA	.190 DIA	.250 DIA	.312 DIA	.375 DIA
02	.125	.095	.156	.125	.324	.373	.456		
03	.188	.157	.219	.188	.387	.435	.519	.602	.697
04	.250	.220	.281	.250	.449	.498	.581	.664	.760
05	.312	.282	.344	.312	.512	.560	.644	.727	.822
06	.375	.345	.406	.375	.574	.623	.706	.789	.885
07	.438	.407	.469	.438	.637	.685	.769	.852	.947
08	.500	.470	.531	.500	.699	.748	.831	.914	1.010
09	.562	.532	.594	.562	.762	.810	.894	.976	1.072
10	.625	.595	.656	.625	.824	.873	.956	1.039	1.135
11	.688	.657	.719	.688	.887	.935	1.019	1.101	1.197
12	.750	.720	.781	.750	.949	.998	1.081	1.164	1.260
13	.812	.782	.844	.812	1.012	1.060	1.144	1.226	1.322
14	.875	.845	.906	.875	1.074	1.123	1.206	1.289	1.385
15	.938	.907	.969	.938	1.137	1.185	1.269	1.351	1.447
16	1.000	.970	1.031	1.000	1.199	1.248	1.331	1.414	1.510
17	1.062	1.032	1.094	1.062	1.262	1.310	1.394	1.476	1.572
18	1.125	1.095	1.156	1.125	1.324	1.373	1.456	1.539	1.635
19	1.188	1.157	1.219	1.188	1.387	1.435	1.519	1.602	1.697
20	1.250	1.220	1.281	1.250	1.449	1.498	1.581	1.664	1.760
21	1.312	1.282	1.344	1.312	1.512	1.560	1.644	1.727	1.822
22	1.375	1.345	1.406	1.375	1.574	1.623	1.706	1.789	1.885
23	1.438	1.407	1.469	1.438	1.637	1.685	1.769	1.852	1.947
24	1.500	1.470	1.531	1.500	1.699	1.748	1.831	1.914	2.010
25	1.562	1.532	1.594	1.562	1.762	1.810	1.894	1.976	2.072
26	1.625	1.595	1.656	1.625	1.824	1.873	1.956	2.039	2.135
27	1.688	1.657	1.719	1.688	1.887	1.935	2.019	2.101	2.197
28	1.750	1.720	1.781	1.750	1.949	1.998	2.081	2.164	2.260
29	1.812	1.782	1.844	1.812	2.012	2.060	2.144	2.226	2.322
30	1.875	1.845	1.906	1.875	2.074	2.123	2.206	2.289	2.385
31	1.938	1.907	1.969	1.938	2.137	2.185	2.269	2.351	2.447
32	2.000	1.970	2.031	2.000	2.199	2.248	2.331	2.414	2.510

① INACTIVE FOR DESIGN AFTER OCT. 30, 1981.

30 Oct. 1981

REVISION ①

Dec. 1973

APPROVAL DATE