

AIA/NAS NAS*1806 THRU*1816 78



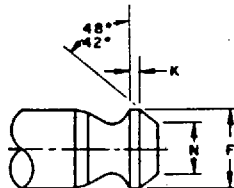
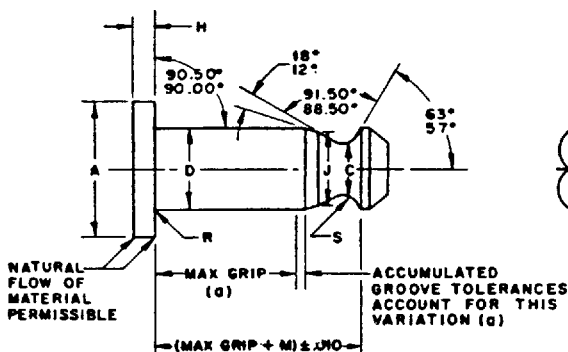
Aerospace Industries Association

0318743 0501600 682
NATIONAL AEROSPACE STANDARD

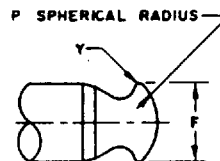
©COPYRIGHT 1994 AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. ALL RIGHTS RESERVED

FED SUP CLASS

HEAD MARKING: SEE NOTE (c)



TYPE I END
FOR 6AL-4V RIVET



TYPE II END
FOR 4AL-4MN RIVETS

BASIC PART NUMBER	NOM. DIA. OR SIZE	A DIA	C DIA	D DIA	F DIA	H	J DIA	K	M	N DIA	P SPHER RAD	R RAD	S RAD	Y RAD MAX	STRAIGHTNESS Z (b)	HEAD MARKING (c)
NAS 1806	3/16	.315 .295	.119 .115	.1895 .1890	.185 .181	.055 .045	.180 .174	.015 .012	.125	.119 .109	.126 .118	.025 .015	.034 .030	.0075	.0040	1806
NAS 1808	1/8	.412 .387	.156 .152	.2495 .2490	.244 .239	.069 .059	.236 .230	.025 .020	.165	.156 .146	.167 .155	.025 .015	.044 .040	.0075	.0030	1808
NAS 1810	5/16	.505 .475	.194 .189	.3120 .3115	.307 .302	.078 .068	.297 .290	.025 .020	.206	.194 .184	.206 .194	.030 .020	.054 .050	.0075	.0030	1810
NAS 1812	3/8	.600 .565	.232 .227	.3745 .3740	.370 .365	.088 .078	.362 .355	.035 .030	.248	.232 .222	.250 .237	.030 .020	.066 .062	.0075	.0025	NAS 1812
NAS 1814	7/16	.676 .641	.270 .265	.4370 .4365	.430 .425	.105 .093	.427 .419	.040 .035	.289	.270 .260	.295 .280	.030 .020	.077 .073	.0125	.0025	NAS 1814
NAS 1816	1/2	.770 .735	.308 .303	.4995 .4990	.493 .488	.115 .103	.490 .481	.045 .040	.330	.308 .296	.337 .322	.030 .020	.089 .085	.0125	.0020	NAS 1816

- NOTES: (a) ENTRANCE CHAMFER - (12° TO 18°) SHALL NOT FALL WITHIN THE MAXIMUM GRIP.
(b) SHANK STRAIGHTNESS - WITHIN ".2" (PER INCH OF LENGTH) VALUES TIR, OR 2/2 WHEN MEASURED WITH A FEELER GAGE AND A SURFACE PLATE.
(c) HEAD MARKING - AS TABULATED ABOVE AND MANUFACTURER'S SYMBOL DEPRESSED .010 MAXIMUM. ADD "V" TO PART NUMBER FOR 6AL-4V MATERIAL. (FOR SIZES 3/16, 1/4 OR 5/16; "NAS" MAY BE INCLUDED IN HEAD MARKING AT OPTION OF FASTENER MANUFACTURER.)
(d) CONCENTRICITY - HEAD TO SHANK WITHIN .010 TIR; "C", "J", AND "F" DIAMETERS TO "D" DIA WITHIN .005 TIR.
(e) SURFACE ROUGHNESS: (RMS MAX PER MIL-STD-10) BEARING SURFACE, HEAD TO SHANK PILLET AND SHANK -63, OTHER AREAS -125.
(f) COLLARS - NAS 1806 THRU 1812 MAY BE INSTALLED WITH NAS 526 COLLARS, NAS 1814 AND 1816 WITH NAS 179 COLLARS.

CODE: LAST TWO DIGITS OF BASIC PART NUMBER DESIGNATES DIA IN 32nds, DASH NUMBER DESIGNATES MAX GRIP IN 32nds. ADD "V" TO BASIC PART NUMBER FOR 6AL-4V MATERIAL.

EXAMPLE: NAS 1808-12 = 1/8 DIA RIVET, .750 MAX GRIP, 4AL-4MN MATERIAL.
NAS 1808V12 = 1/8 DIA RIVET, .750 MAX GRIP, 6AL-4V MATERIAL.

MATERIAL: TITANIUM ALLOY PER PROCUREMENT SPECIFICATION: MINIMUM STRENGTH 95,000 PSI SHEAR.

INSPECTION REQUIREMENTS: SEE PROCUREMENT SPECIFICATION.

FINISH: NO PROTECTIVE FINISH REQUIRED.

LUBRICATION: TO BE APPLIED BY RECEIVING CONTRACTOR AFTER PENETRANT INSPECTION, TYPE OF LUBRICANT TO BE DETERMINED BY PRIME CONTRACTOR.

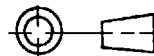
DIMENSIONS IN INCHES.

CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE

PROCUREMENT SPECIFICATION
NAS621

TITLE
RIVET-HI-SHEAR, FLAT HEAD INTERFERENCE FIT,
TITANIUM ALLOY

THIRD
ANGLE
PROJECTION



CLASSIFICATION
STANDARD PART

NAS1806 THRU 1816

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. IT 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.

REAFFIRMED JANUARY 1994

APPROVAL DATE SEPTEMBER 1957 REVISION ① 10 APRIL 1978

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.

NATIONAL AIRCRAFT STANDARD

AIRCRAFT INDUSTRIES ASSOCIATION OF AMERICA, INC., 610 SHOREHAM BUILDING, WASHINGTON 5, D. C.

THIS DRAWING SUPERSEDES ALL INTERVENEING STANDARD DRAWINGS FOR THE SAME PRODUCT AND SPECIFICATION. FOR REVISIONS OF THIS STANDARD DRAWING, SEE THE LATEST DATE OF APPROVAL SHOWN.

IN FORMULATING AND APPROVING THIS STANDARD, AIA AND ITS COMMITTEES WILL NOT INVESTIGATE OR BE RESPONSIBLE FOR PROTECTING THEMSELVES AGAINST INFRINGEMENT OF PATENTS OR OTHER RIGHTS WHICH MAY APPLY TO THE SUBJECT MATTER OF THIS STANDARD.

DASH NO.	MAX GRIP	GRIP RANGE		(MAX GRIP + M) ± .010 FOR NOM DIA SHOWN						DASH NO.
		MIN	MAX	3/16	1/4	5/16	3/8	7/16	1/2	
2	1/8	.062	.125	.250		.354				2
3	3/16	.126	.188	.313	.353	.456	.498	.539		3
4	1/4	.189	.250	.375	.415	.518	.560	.601	.642	4
5	5/16	.251	.312	.437	.477	.581	.623	.664	.705	5
6	3/8	.313	.375	.500	.540	.644	.686	.727	.768	6
7	7/16	.376	.438	.563	.603	.706	.748	.789	.830	7
8	1/2	.439	.500	.625	.665	.768	.810	.851	.892	8
9	9/16	.501	.562	.687	.727	.831	.873	.914	.955	9
10	5/8	.563	.625	.750	.790	.894	.936	.977	1.018	10
11	11/16	.626	.688	.813	.853	.956	.998	1.039	1.080	11
12	3/4	.689	.750	.875	.915	1.018	1.060	1.101	1.142	12
13	13/16	.751	.812	.937	.977	1.081	1.123	1.164	1.205	13
14	7/8	.813	.875	1.000	1.040	1.144	1.186	1.227	1.268	14
15	15/16	.876	.938	1.063	1.103	1.206	1.248	1.289	1.330	15
16	1	.939	1.000	1.125	1.165	1.268	1.310	1.351	1.392	16
17	1-1/16	1.001	1.062	1.187	1.227	1.331	1.373	1.414	1.455	17
18	1-1/8	1.063	1.125	1.250	1.290	1.394	1.436	1.477	1.518	18
19	1-3/16	1.126	1.188	1.313	1.353	1.456	1.498	1.539	1.580	19
20	1-1/4	1.189	1.250	1.375	1.415	1.518	1.560	1.601	1.642	20
21	1-5/16	1.251	1.312	1.437	1.477	1.581	1.623	1.664	1.705	21
22	1-3/8	1.313	1.375	1.500	1.540	1.644	1.686	1.727	1.768	22
23	1-7/16	1.376	1.438	1.563	1.603	1.706	1.748	1.789	1.830	23
24	1-1/2	1.439	1.500	1.625	1.665	1.768	1.810	1.851	1.892	24
25	1-9/16	1.501	1.562	1.687	1.727	1.831	1.873	1.914	1.955	25
26	1-5/8	1.563	1.625	1.750	1.790	1.894	1.936	1.977	2.018	26
27	1-11/16	1.626	1.688	1.813	1.853	1.956	1.998	2.039	2.080	27
28	1-3/4	1.689	1.750	1.875	1.915	2.018	2.060	2.101	2.142	28
29	1-13/16	1.751	1.812	1.937	1.977	2.081	2.123	2.164	2.205	29
30	1-7/8	1.813	1.875	2.000	2.040	2.144	2.186	2.227	2.268	30
31	1-15/16	1.876	1.938	2.063	2.103	2.206	2.248	2.289	2.330	31
32	2	1.939	2.000	2.125	2.165	2.268	2.310	2.351	2.392	32
33	2-1/16	2.001	2.062	2.187	2.227	2.331	2.373	2.414	2.455	33
34	2-1/8	2.063	2.125	2.250	2.290	2.394	2.436	2.477	2.518	34
35	2-3/16	2.126	2.188	2.313	2.353	2.456	2.498	2.539	2.580	35
36	2-1/4	2.189	2.250	2.375	2.415	2.518	2.560	2.601	2.642	36
37	2-5/16	2.251	2.312	2.437	2.477	2.581	2.623	2.664	2.705	37
38	2-3/8	2.313	2.375	2.500	2.540	2.644	2.686	2.727	2.768	38
39	2-7/16	2.376	2.438	2.563	2.603	2.706	2.748	2.789	2.830	39
40	2-1/2	2.439	2.500	2.625	2.665	2.768	2.810	2.851	2.892	40
41	2-9/16	2.501	2.562	2.687	2.727	2.831	2.873	2.914	2.955	41
42	2-5/8	2.563	2.625	2.750	2.790	2.894	2.936	2.977	3.018	42
43	2-11/16	2.626	2.688	2.813	2.853	2.956	2.998	3.039	3.080	43
44	2-3/4	2.689	2.750	2.875	2.915	3.018	3.060	3.101	3.142	44
45	2-13/16	2.751	2.812	2.937	2.977	3.081	3.123	3.164	3.205	45
46	2-7/8	2.813	2.875	3.000	3.040	3.144	3.186	3.227	3.268	46
47	2-15/16	2.876	2.938	3.063	3.103	3.206	3.248	3.289	3.330	47
48	3	2.939	3.000	3.125	3.165	3.268	3.310	3.351	3.392	48
49	3-1/16	3.001	3.062	3.187	3.227	3.331	3.373	3.414	3.455	49
50	3-1/8	3.063	3.125	3.250	3.290	3.394	3.436	3.477	3.518	50
51	3-3/16	3.126	3.188	3.313	3.353	3.456	3.498	3.539	3.580	51
52	3-1/4	3.189	3.250	3.375	3.415	3.518	3.560	3.601	3.642	52
53	3-5/16	3.251	3.312	3.437	3.477	3.581	3.623	3.664	3.705	53
54	3-3/8	3.313	3.375	3.500	3.540	3.644	3.686	3.727	3.768	54
55	3-7/16	3.376	3.438	3.563	3.603	3.706	3.748	3.789	3.830	55
56	3-1/2	3.439	3.500	3.625	3.665	3.768	3.810	3.851	3.892	56
57	3-9/16	3.501	3.562	3.687	3.727	3.831	3.873	3.914	3.955	57
58	3-5/8	3.563	3.625	3.750	3.790	3.894	3.936	3.977	4.018	58
59	3-11/16	3.626	3.688	3.813	3.853	3.956	4.000	4.041	4.080	59
60	3-3/4	3.689	3.750	3.875	3.915	4.018	4.060	4.101	4.142	60
61	3-13/16	3.751	3.812	3.937	3.977	4.081	4.123	4.164	4.205	61
62	3-7/8	3.813	3.875	4.000	4.040	4.144	4.186	4.227	4.268	62
63	3-15/16	3.876	3.938	4.063	4.103	4.206	4.248	4.289	4.330	63
64	4	3.939	4.000	4.125	4.165					64

CUSTODIAN:

NATIONAL AIRCRAFT STANDARDS COMMITTEE

PROCUREMENT SPECIFICATION

NAS 621

TITLE

RIVET—HI-SHEAR FLAT HEAD
INTERFERENCE FIT, TITANIUM ALLOYCLASSIFICATION
STANDARD PART

NAS 1806 THRU 1816

SHEET 2

APPROVAL DATE Sept. 1957 REVISION 1 10 April 1978

Copyright, 1957, Aircraft Industries Association of America, Inc.

Published and distributed by: National Standards Association, Inc.
4827 Rugby Ave.
Washington, D. C. 20014(c) Aerospace Industries Association of America, Inc. 1978
All rights reserved.

Documents

Document Sharing Hub