

AIA/NAS NAS*1906 THRU*1916 78



Aerospace Industries Association

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NATIONAL AEROSPACE STANDARD

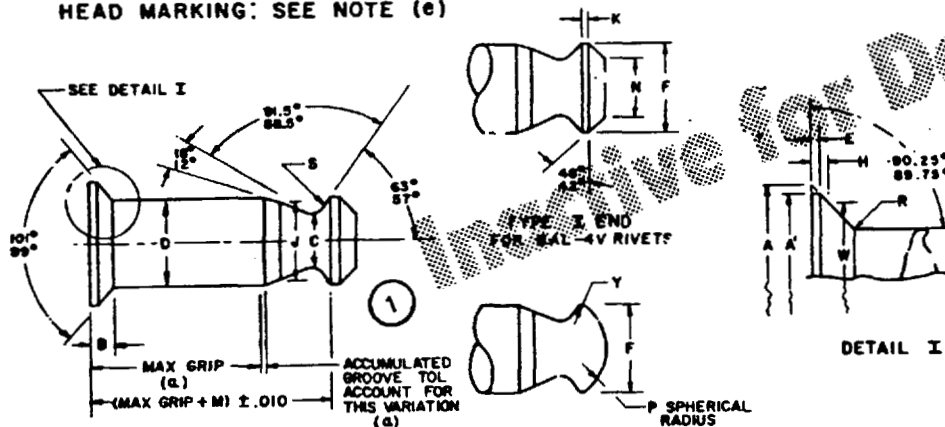
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FED SUP CLASS

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.

HEAD MARKING: SEE NOTE (e)



TYPE II END
FOR 4AL-4MN RIVETS

BASIC PART NUMBER	NOM DIA OR SIZE	A DIA TO SHARP CORNER MAX (b)	A' DIA (ABS. MIN.) (b)	B HEAD HEIGHT MAX (b)	C	D DIA	E - MAX LAND WIDTH	F	(c) H GAGE PROTRUSION		J DIA	K	M	N DIA	P RAD	R RAD	S RAD	Y MAX RAD	W +.0002 -.0000 (c)	STRAIGHT- NESS Z (d)	HEAD MARKING (e)
									MOM	±TOL											
NAS1906	3/16	.305	.258	.048	.119 .115	.1895 .1890	.015	.185 .181	.0230	.0020	.180 .174	.015 .012	.125	.119 .109	.128 .118	.030 .020	.034 .030	.0075	.2438	.0040	1906
NAS1908	1/4	.399	.350	.063	.156 .152	.2495 .2490	.015	.244 .239	.0255	.0023	.236 .230	.025 .020	.165	.156 .146	.167 .155	.030 .020	.044 .040	.0075	.3312	.0030	1908
NAS1910	5/16	.479	.429	.070	.194 .189	.3120 .3115	.015	.307 .302	.0280	.0025	.297 .290	.025 .020	.206	.194 .184	.206 .194	.040 .030	.054 .050	.0075	.4045	.0030	1910
NAS1912	3/8	.566	.515	.081	.232 .227	.3745 .3740	.015	.370 .365	.0305	.0028	.362 .355	.035 .030	.248	.232 .222	.250 .237	.040 .030	.066 .062	.0075	.4852	.0025	NAS1912
NAS1914	7/16	.674	.605	.100	.270 .265	.4370 .4365	.022	.430 .425	.0400	.0030	.427 .419	.040 .035	.289	.270 .260	.295 .280	.050 .040	.077 .073	.0125	.5696	.0025	NAS1914
NAS1916	1/2	.761	.690	.110	.308 .303	.4995 .4990	.022	.493 .488	.0425	.0033	.490 .481	.045 .040	.330	.308 .298	.337 .322	.050 .040	.089 .085	.0125	.6498	.0020	NAS1916

- NOTES: (a) ENTRANCE CHAMFER (12° TO 18°) - SHALL NOT FALL WITHIN MAXIMUM GRIP.
(b) DIMENSIONS A, A', AND B - INCLUDED FOR ENGINEERING REFERENCE PURPOSES ONLY, NOT FOR INSPECTION PURPOSES. VALUES A, A', AND B - CALCULATED LIMITS RESULTING FROM TOLERANCES ON D, W, H, E, AND HEAD ANGLES.
(c) GAGE PROTRUSION "H" - SEE NAS 527 FOR THE RECOMMENDED PRACTICE FOR INSPECTING HEAD CHARACTERISTICS.
(d) SHANK STRAIGHTNESS - WITHIN ".2" (PER INCH OF LENGTH) VALUES TIP, OR 2/2 WHEN MEASURED WITH FEELER GAGE AND SURFACE PLATE.
(e) 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.)
(f) CONCENTRICITY - CONICAL SURFACE OF HEAD AND "D" DIAMETER WITHIN .003 TIR; "C", "J", AND "F" DIAMETERS TO "D" DIA WITHIN .005 TIR.
(g) SURFACE ROUGHNESS - (RMS MAX PER MIL-STD-10) BEARING SURFACE, HEAD TO SHANK FILLET AND SHANK -.63; OTHERS -.125.
(h) COLLARS - NAS 1906 THRU 1912 MAY BE INSTALLED WITH NAS 526 COLLARS, NAS 1914 AND 1916 WITH NAS 179 COLLARS.

CODE: LAST TWO DIGITS OF BASIC PART NUMBER DESIGNATES NOMINAL DIA IN 32NDS, DASH NUMBER DESIGNATES MAX GRIP IN 16THS.

ADD "V" AFTER BASIC PART NUMBER FOR 6AL-4V MATERIAL.

EXAMPLE: NAS 1908-12 = 1/4 DIA RIVET, .750 MAX GRIP, 4AL-4MN MATERIAL.

NAS 1908V12 = 1/4 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

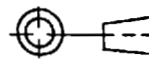
PROCUREMENT
SPECIFICATION

NAS621

TITLE

RIVET-HI-SHEAR, 100° HEAD INTERFERENCE
FIT, TITANIUM ALLOY

THIRD
ANGLE
PROJECTION



CLASSIFICATION
STANDARD PART

NAS1906 THRU 1916

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Full document details: AIA NAS1906-1916 1978

REAFFIRMED JANUARY 1994

APPROVAL DATE SEPTEMBER 1957 REVISION (1) 10 APRIL 1978

NATIONAL AIRCRAFT STANDARD

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

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THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME PRODUCT AND SHALL BECOME EFFECTIVE FOR VENDOR MANUFACTURING NOT LATER THAN 6 MONTHS AFTER THE LATEST DATE OF APPROVAL SIGNATURE.

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						2
3	3/16	.120	.188	.313	.353	.394	.498	.539		3
4	1/4	.189	.250	.375	.415	.456	.560	.601		4
5	5/8	.251	.312	.437	.477	.518	.623	.664	.642	5
6	3/8	.313	.375	.500	.540	.581			.705	6
7	7/16						.686	.727		7
8	1/2	.376	.438	.563	.603	.644	.748	.789	.768	8
9	9/16	.439	.500	.625	.665	.706	.810	.851	.830	9
10	5/8	.501	.562	.687	.727	.768	.873	.914	.892	10
11	11/16	.563	.625	.750	.790	.831	.936	.977	.955	11
12		.626	.688	.813	.853	.894			1.018	12
13	3/4	.689	.750	.875	.915	.956	.998	1.039	1.080	13
14	13/16	.751	.812	.937	.977	1.018	1.060	1.101	1.142	14
15	7/8	.813	.875	1.000	1.040	1.081	1.123	1.164	1.205	15
16	15/16	.876	.938	1.063	1.103	1.144	1.186	1.227	1.268	16
	1	.939	1.000	1.125	1.165	1.206	1.248	1.289	1.330	
17	1-1/16	1.001	1.062	1.187	1.227	1.268	1.310	1.351	1.392	17
18	1-1/8	1.063	1.125	1.250	1.290	1.331	1.373	1.414	1.455	18
19	1-3/16	1.126	1.188	1.313	1.353	1.394	1.436	1.477	1.518	19
20	1-1/4	1.189	1.250	1.375	1.415	1.456	1.498	1.539	1.580	20
21	1-5/16	1.251	1.312	1.437	1.477	1.518	1.560	1.601	1.642	21
22	1-3/8	1.313	1.375	1.500	1.540	1.581	1.623	1.664	1.705	22
23	1-7/16	1.376	1.438	1.563	1.603	1.644	1.686	1.727	1.768	23
24	1-1/2	1.439	1.500	1.625	1.665	1.706	1.748	1.789	1.830	24
25	1-9/16	1.501	1.562	1.687	1.727	1.768	1.810	1.851	1.892	25
26	1-5/8	1.563	1.625	1.750	1.790	1.831	1.873	1.914	1.955	26
27	1-11/16	1.626	1.688	1.813	1.853	1.894	1.936	1.977	2.018	27
28	1-3/4	1.689	1.750	1.875	1.915	1.956	1.998	2.039	2.080	28
29	1-13/16	1.751	1.812	1.937	1.977	2.018	2.060	2.101	2.142	29
30	1-7/8	1.813	1.875	2.000	2.040	2.081	2.123	2.164	2.205	30
31	1-15/16	1.876	1.938	2.063	2.103	2.144	2.186	2.227	2.268	31
32	2	1.939	2.000	2.125	2.165	2.206	2.248	2.289	2.330	32
33	2-1/16	2.001	2.062	2.187	2.227	2.268	2.310	2.351	2.392	33
34	2-1/8	2.063	2.125	2.250	2.290	2.331	2.373	2.414	2.455	34
35	2-3/16	2.126	2.188	2.313	2.353	2.394	2.436	2.477	2.518	35
36	2-1/4	2.189	2.250	2.375	2.415	2.456	2.498	2.539	2.580	36
37	2-5/16	2.251	2.312	2.437	2.477	2.518	2.560	2.601	2.642	37
38	2-3/8	2.313	2.375	2.500	2.540	2.581	2.623	2.664	2.705	38
39	2-7/16	2.376	2.438	2.563	2.603	2.644	2.686	2.727	2.768	39
40	2-1/2	2.439	2.500	2.625	2.665	2.706	2.748	2.789	2.830	40
41	2-9/16	2.501	2.562	2.687	2.727	2.768	2.810	2.851	2.892	41
42	2-5/8	2.563	2.625	2.750	2.790	2.831	2.873	2.914	2.955	42
43	2-11/16	2.626	2.688	2.813	2.853	2.894	2.936	2.977	3.018	43
44	2-3/4	2.689	2.750	2.875	2.915	2.956	2.998	3.039	3.080	44
45	2-13/16	2.751	2.812	2.937	2.977	3.018	3.060	3.101	3.142	45
46	2-7/8	2.813	2.875	3.000	3.040	3.081	3.123	3.164	3.205	46
47	2-15/16	2.876	2.938	3.063	3.103	3.144	3.186	3.227	3.268	47
48	3	2.939	3.000	3.125	3.165	3.206	3.248	3.289	3.330	48
49	3-1/16	3.001	3.062	3.187	3.227	3.268	3.310	3.351	3.392	49
50	3-1/8	3.063	3.125	3.250	3.290	3.331	3.373	3.414	3.455	50
51	3-3/16	3.126	3.188	3.313	3.353	3.394	3.436	3.477	3.518	51
52	3-1/4	3.189	3.250	3.375	3.415	3.456	3.498	3.539	3.580	52
53	3-5/16	3.251	3.312	3.437	3.477	3.518	3.560	3.601	3.642	53
54	3-3/8	3.313	3.375	3.500	3.540	3.581	3.623	3.664	3.705	54
55	3-7/16	3.376	3.438	3.563	3.603	3.644	3.686	3.727	3.768	55
56	3-1/2	3.439	3.500	3.625	3.665	3.706	3.748	3.789	3.830	56
57	3-9/16	3.501	3.562	3.687	3.727	3.768	3.810	3.851	3.892	57
58	3-5/8	3.563	3.625	3.750	3.790	3.831	3.873	3.914	3.955	58
59	3-11/16	3.626	3.688	3.813	3.853	3.894	3.936	3.977	4.018	59
60	3-3/4	3.689	3.750	3.875	3.915	3.956	3.998	4.039	4.080	60
61	3-13/16	3.751	3.812	3.937	3.977	4.018	4.060	4.101	4.142	61
62	3-7/8	3.813	3.875	4.000	4.040	4.081	4.123	4.164	4.205	62
63	3-15/16	3.876	3.938	4.063	4.103	4.144	4.186	4.227	4.268	63
64	4	3.939	4.000	4.125	4.165	4.206	4.248	4.289	4.330	64

CUSTODIAN:

NATIONAL AIRCRAFT STANDARDS COMMITTEE

PROCUREMENT SPECIFICATION

NAS 621

TITLE

RIVET - HI - SHEAR, 100° HEAD
INTERFERENCE FIT, TITANIUM ALLOYCLASSIFICATION
STANDARD PART

NAS 1906 THRU 1916

SHEET 2

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APPROVAL DATE Sept. 1957 REVISION (1) 10 April 1978