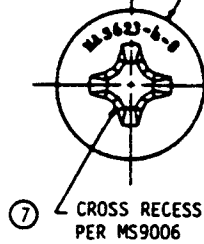
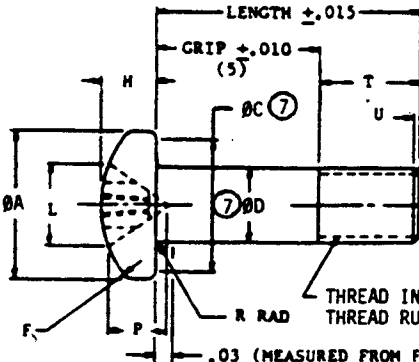




HEAD MARKING: BASIC PART NUMBER, APPLICABLE DASH NUMBERS AND MANUFACTURER'S TRADE MARK RAISED OR DEPRESSED .010 INCH MAXIMUM. LOCATION OPTIONAL. ON .1640 DIA SCREWS "NAS" MAY BE OMITTED ON HEAD.



CROSS RECESS PER MS9006



END SHALL BE FLAT AND CHAMFERED. CHAMFER PLUS INCOMPLETE THREADS NOT TO EXCEED TWO THREAD PITCHES.

THREAD IN ACCORDANCE WITH MIL-S-8879
THREAD RUNOUT IN ACCORDANCE WITH MIL-B-7838

.03 (MEASURED FROM FILLET RADIUS TANGENCY POINT)
AN INCREASE OF .001 OVER "D" DIAMETER PERMISSIBLE.

FIRST DASH NUMBER	THREAD	ØA (7)	ØC MIN (7)	ØD (7)	P RAD (REF)	H	L (7)	P MAX	R RAD	T (REF)	U (REF)
2	.1640-32 UNJC-3A	.322 .306	.289	.1635 .1610	-.24	.115 .105	.179 .169	-.127	.020 .010	.276	.016
3	.1900-32 UNJF-3A	.373 .357	.331	.1895 .1870	-.28	.133 .122	.196 .186	-.145	.020 .010	.276	.016
4	.2500-28 UNJF-3A	.492 .473	.424	.2495 .2470	-.37	.175 .162	.278 .268	-.192	.020 .010	.316	.018
5	.3125-24 UNJF-3A	.615 .596	.518	.3120 .3095	-.53	.218 .203	.347 .337	-.227	.020 .010	.375	.021
6	.3750-24 UNJF-3A	.740 .716	.611	.3745 .3720	-.65	.261 .244	.390 .380	-.266	.025 .015	.391	.021

FIRST DASH NUMBER	INSPECTION DATA					ULT TS LBS MIN
	X (2)	Y (2)	Z (3)	RECESS GAGE PENETRATION (4)		
				MAX	MIN	
2	.005	.0045	.0040	.094	.071	1740
3	.005	.0045	.0040	.110	.089	2490
4	.006	.0045	.0030	.141	.118	4520
5	.008	.0045	.0030	.170	.149	7240
6	.009	.0040	.0025	.210	.190	10950

MATERIAL: ALLOY STEEL - 4140 (UNS G41400) PER MIL-S-5626, 4340 (UNS G43400) PER MIL-S-5000 OR 8740 (UNS G87400) PER MIL-S-6049. (7)

HEAT TREATMENT: 160,000-180,000 PSI ULTIMATE TENSILE STRENGTH IN ACCORDANCE WITH SPEC MIL-H-6875.

FINISH: CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 2. TYPE I PLATE DESIGNATED BY "W" (SEE CODE). (7)
~~SCREWS WITH CLASS 3 PLATING AND WITH MIL-S-7742 THREADS MAY BE SUPPLIED UNTIL 30 APRIL 1976.~~

CODE: FIRST DASH NUMBER DESIGNATES NOMINAL DIAMETER (SEE TABLE ABOVE).
SECOND DASH NUMBER DESIGNATES GRIP AND LENGTH (SEE SHEET TWO).

~~"W" AFTER SECOND DASH NUMBER DESIGNATES TYPE I PLATING. QQ-P-416, TYPE I, CLASS 2 CADMIUM PLATED SCREWS (7)
"W" CODE ARE INACTIVE FOR NEW DESIGN AFTER APRIL 1988.~~

EXAMPLE OF PART NUMBERS:

NAS623-4-10 = .2500 INCH DIAMETER SCREW, .625 INCH GRIP, TYPE II PLATING. (7)

~~NAS623-4-10W = .2500 INCH DIAMETER SCREW, .625 INCH GRIP, TYPE I PLATING.~~

NOTES: UNLESS OTHERWISE SPECIFIED;

- (7) 1. DIMENSION IN INCHES.
- (7) 2. CONCENTRICITY: "C" AND "D" DIAMETERS WITH "X" VALUES FIM.
"D" AND THREAD PITCH DIAMETER WITHIN "Y" VALUES FIM.
RECESS TO SHANK WITHIN .016 FIM THRU .250 INCH SIZE.
WITHIN .024 FIM ABOVE .250 INCH SIZE.
- (7) 3. SHANK STRAIGHTNESS: WITHIN "Z" VALUES FIM PER INCH OF LENGTH.
4. RECESS GAGING IN ACCORDANCE WITH MILITARY STANDARD MS9006, CROSS RECESS AND GAGE DIMENSIONS - MACHINE, TAPPING AND WOOD SCREWS, LOW TORQUE.
5. GRIP LENGTH: FROM UNDERSIDE OF HEAD TO END OF FULL CYLINDRICAL PORTION OF SHANK.
6. SCREWS SHALL BE FREE FROM BURRS AND SHARP EDGES.

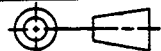
PROCUREMENT SPECIFICATION: NAS498. TENSION LOAD VALUES AS TABULATED ABOVE.
MAXIMUM MAJOR DIAMETER OF THREADS NEED NOT CONFORM TO PARAGRAPH E-1a OF NAS498.

LIST OF CURRENT SHEETS

SHEET	REV
1	7
2	2

CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE

THIRD ANGLE PROJECTION



PROCUREMENT SPECIFICATION

TITLE

CLASSIFICATION STANDARD PART

NAS498

SCREW, MACHINE,
AIRCRAFT, PAN HEAD, CROSS RECESS, SHORT THREAD, (7)
160,000 PSI ALLOY STEEL

NAS 623

SHEET 1 OF 2

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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.

REAFFIRMED APRIL 15, 1993

APPROVAL DATE Sept. 1956 REVISION (7) 8 JULY 1988



SECOND DASH NUMBER	GRIP	LENGTH				
		NAS 623-2	NAS 623-3	NAS 623-4	NAS 623-5	NAS 623-6
1	.062	.338	.338	.378	.437	.453
2	.125	.401	.401	.44	.500	.516
3	.168	.464	.464	.504	.563	.579
4	.250	.526	.526	.566	.625	.641
5	.312	.588	.588	.628	.687	.703
6	.375	.651	.651	.691	.750	.766
7	.438	.714	.714	.754	.813	.829
8	.500	.776	.776	.816	.875	.891
9	.562	.838	.838	.878	.937	.953
10	.625	.901	.901	.941	1.000	1.016
11	.688	.964	.964	1.004	1.063	1.079
12	.750	1.026	1.026	1.066	1.125	1.141
13	.812	1.088	1.088	1.128	1.187	1.203
14	.875	1.151	1.151	1.191	1.250	1.266
15	.938	1.214	1.214	1.254	1.313	1.329
16	1.000	1.276	1.276	1.316	1.375	1.391
17	1.062	1.338	1.338	1.378	1.437	1.453
18	1.125	1.401	1.401	1.441	1.500	1.516
19	1.188	1.464	1.464	1.504	1.563	1.579
20	1.250	1.526	1.526	1.566	1.625	1.641
21	1.312	1.588	1.588	1.628	1.687	1.703
22	1.375	1.651	1.651	1.691	1.750	1.766
23	1.438	1.714	1.714	1.754	1.813	1.829
24	1.500	1.776	1.776	1.816	1.875	1.891
25	1.562	1.838	1.838	1.878	1.937	1.953
26	1.625	1.901	1.901	1.941	2.000	2.016
27	1.688	1.964	1.964	2.004	2.063	2.079
28	1.750	2.026	2.026	2.066	2.125	2.141
29	1.812	2.088	2.088	2.128	2.187	2.203
30	1.875	2.151	2.151	2.191	2.250	2.266
31	1.938	2.214	2.214	2.254	2.313	2.329
32	2.000	2.276	2.276	2.316	2.375	2.391
34	2.125	2.401	2.401	2.441	2.500	2.516
36	2.250	2.526	2.526	2.566	2.625	2.641
38	2.375	2.651	2.651	2.691	2.750	2.766
40	2.500	2.776	2.776	2.816	2.875	2.891
42	2.625	2.901	2.901	2.941	3.000	3.016
44	2.750	3.026	3.026	3.066	3.125	3.141
46	2.875	3.151	3.151	3.191	3.250	3.266
48	3.000	3.276	3.276	3.316	3.375	3.391
50	3.125	3.401	3.401	3.441	3.500	3.516
52	3.250	3.526	3.526	3.566	3.625	3.641
54	3.375	3.651	3.651	3.691	3.750	3.766
56	3.500	3.776	3.776	3.816	3.875	3.891
58	3.625	3.901	3.901	3.941	4.000	4.016
60	3.750	4.026	4.026	4.066	4.125	4.141
62	3.875	4.151	4.151	4.191	4.250	4.266
64	4.000	4.276	4.276	4.316	4.375	4.391
66	4.125	4.401	4.401	4.441	4.500	4.516
68	4.250	4.526	4.526	4.566	4.625	4.641
70	4.375	4.651	4.651	4.691	4.750	4.766
72	4.500	4.776	4.776	4.816	4.875	4.891
74	4.625	4.901	4.901	4.941	5.000	5.016
76	4.750	5.026	5.026	5.066	5.125	5.141
78	4.875	5.151	5.151	5.191	5.250	5.266
80	5.000	5.276	5.276	5.316	5.375	5.391
82	5.125	5.401	5.401	5.441	5.500	5.516
84	5.250	5.526	5.526	5.566	5.625	5.641
86	5.375	5.651	5.651	5.691	5.750	5.766
88	5.500	5.776	5.776	5.816	5.875	5.891
90	5.625	5.901	5.901	5.941	6.000	6.016
92	5.750	6.026	6.026	6.066	6.125	6.141
94	5.875	6.151	6.151	6.191	6.250	6.266
96	6.000	6.276	6.276	6.316	6.375	6.391

SECOND DASH NUMBER INDICATES GRIP LENGTH IN .062 INCREMENTS. INTERMEDIATE OR LONGER LENGTHS MAY BE SPECIFIED BY USE OF WHOLE DASH NUMBERS ONLY.

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.

APPROVAL DATE 15 SEP 1956 REVISION 1 15 APRIL 1957 2 31 Oct. 1961

EDITORIALLY UPDATED

NAS 623 Sheet 2