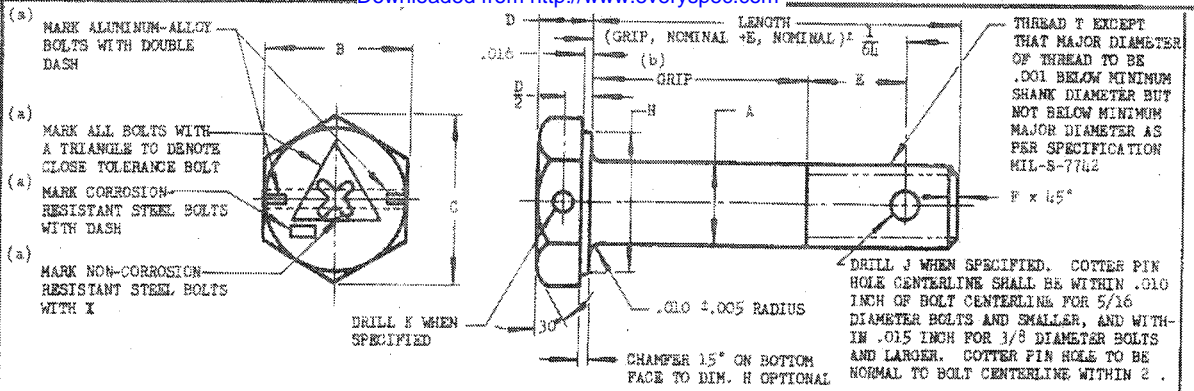


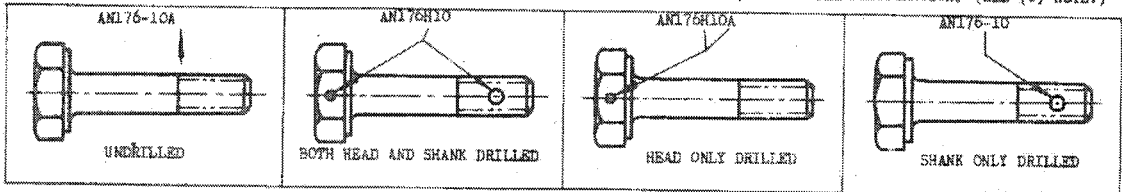
NOTE: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility, nor any obligation whatsoever, and the fact that the Government may have furnished, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded as an endorsement or approval in any manner whatsoever by the Government, or conveying any rights or permissions to manufacture, use, or sell any product or process that may in any way be related thereto.



BASIC AN PART NO.	THREAD T	A DIA		B		C REF	D		E REF	F		H DIA	J DRILL DIA +.010 -.000	K DRILL DIA +.010 -.000
		MAX	MIN	MAX	MIN		MAX	MIN		MAX	MIN			
AN173	NO. 10-32 NF-3A	.1894	.1989	.377	.365	.430	.144	.109	17/64	.047	.015	.359	.070	.046
AN174	1/4-28 UNF-3A	.2492	.2487	.440	.428	.510	.172	.140	5/16	.047	.015	.422	.076	.046
AN175	5/16-24 UNF-3A	.3117	.3112	.502	.489	.580	.204	.172	23/64	.063	.031	.484	.076	.070
AN176	3/8-24 UNF-3A	.3742	.3737	.565	.553	.650	.235	.203	7/16	.063	.031	.547	.106	.070
AN177	7/16-20 UNF-3A	.4367	.4362	.627	.615	.720	.266	.234	31/64	.063	.031	.609	.106	.070
AN178	1/2-20 UNF-3A	.4991	.4986	.752	.740	.870	.297	.265	39/64	.063	.031	.734	.106	.070
AN179	9/16-18 UNF-3A	.5616	.5611	.877	.865	1.010	.328	.296	21/32	.078	.046	.859	.141	.070
AN180	5/8-16 UNF-3A	.6240	.6235	.940	.928	1.090	.360	.328	47/64	.078	.046	.922	.141	.070
AN182	3/4-16 UNF-3A	.7488	.7483	1.066	1.053	1.230	.422	.390	7/8	.078	.046	1.047	.141	.070
AN184	7/8-14 UNF-3A	.8737	.8725	1.253	1.240	1.440	.485	.453	83/64	.094	.062	1.234	.141	.070
AN186	1-14 NF-3A	.9985	.9975	1.441	1.428	1.660	.547	.515	1-3/32	.094	.062	1.422	.141	.070

- 3 SEE SHEET 3 FOR NOTES (a), (b), AND (c).
 - 3 (a) THE DIAMETER OF THE WASHER FACE SHALL NOT EXCEED THE ACTUAL WIDTH ACROSS FLATS.
- MATERIAL: NON-CORROSION-RESISTANT STEEL, CORROSION-RESISTANT STEEL, OR ALUMINUM ALLOY. SEE PROCUREMENT SPECIFICATION
- 3 FINISH: SEE PROCUREMENT SPECIFICATION, EXCEPT AS NOTED.
PLATING MAY BE GROUND OFF SHANK OR UNDERSIDE OF HEAD. SMALL AREAS OF CADMIUM PLATING REMAINING ON THE GROUND PORTION OF BOLTS SHALL NOT BE CAUSE FOR REJECTION. UNPLATED SURFACES SHALL BE COATED WITH COMPOUND, SPECIFICATION MIL-C-11796 OR MIL-C-16173. SURFACE ROUGHNESS IN RMS MICRO INCHES BEFORE PLATING SHALL BE: 63 MAX FOR SHANK AND UNDERSIDE OF HEAD, 125 MAX FOR THREADS (VISUAL COMPARISON ONLY), 250 MAX FOR ALL OTHER AREAS (VISUAL COMPARISON ONLY).

- ADD C BEFORE DASH NUMBER FOR CORROSION-RESISTANT STEEL BOLT. (SEE (a) NOTE.)
 - ADD DD BEFORE DASH NUMBER FOR ALUMINUM-ALLOY BOLT. (SEE (a) NOTE.)
 - ADD A AFTER DASH NUMBER FOR UNDRILLED BOLT. SEE ILLUSTRATION.
 - ADD H BEFORE DASH NUMBER FOR BOLT WITH DRILLED HEAD AND SHANK. SEE ILLUSTRATION.
 - ADD H BEFORE DASH NUMBER AND A AFTER DASH NUMBER FOR BOLT WITH DRILLED HEAD ONLY. SEE ILLUSTRATION
- EXAMPLES OF PART NUMBERS:
- AN176-10 = 3/8 NON-CORROSION-RESISTANT STEEL BOLT 1-5/64 LONG, 7/16 GRIP WITH DRILLED SHANK ONLY. SEE ILLUSTRATION.
 - AN176C10 = 3/8 CORROSION-RESISTANT STEEL BOLT 1-5/64 LONG, 7/16 GRIP WITH DRILLED SHANK ONLY. SEE ILLUSTRATION. (SEE (c) NOTE.)
 - AN176DD10 = 3/8 ALUMINUM-ALLOY BOLT 1-5/64 LONG, 7/16 GRIP WITH DRILLED SHANK ONLY. SEE ILLUSTRATION. (SEE (c) NOTE.)
 - AN176DD10A = 3/8 ALUMINUM-ALLOY BOLT 1-5/64 LONG, 7/16 GRIP, UNDRILLED SHANK AND HEAD. SEE ILLUSTRATION. (SEE (c) NOTE.)
 - AN176DDH10 = 3/8 ALUMINUM-ALLOY BOLT 1-5/64 LONG, 7/16 GRIP WITH DRILLED HEAD AND SHANK. SEE ILLUSTRATION. (SEE (c) NOTE.)
 - AN176DDH10A = 3/8 ALUMINUM-ALLOY BOLT 1-5/64 LONG, 7/16 GRIP WITH DRILLED HEAD ONLY. SEE ILLUSTRATION. (SEE (c) NOTE.)



- 3 BOLTS SHALL BE FREE FROM ALL HANGING BURRS AND SLIVERS WHICH MIGHT BECOME DISLODGED UNDER USAGE. COUNTERSINKING OF DRILLED HOLES IN HEAD IS MANDATORY. COUNTERSINKING OF DRILLED HOLES IN SHANK IS OPTIONAL.
- DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS ±.010, ANGLES ±5°.

APPROVED 28 Mar 49 REVISED 1 24 Mar 52 2 30 Oct 52 3 15 Mar 55

NOTICE: When Government drawings, specifications, or other data are used for any purpose other than in connection with a defense procurement operation, the United States Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government has authorized the use of such data in connection with a particular defense procurement operation does not constitute an authorization of other than the Government's sole and exclusive right in and to such data for all purposes. It is the policy of the Department of Defense to make its drawings, specifications, and other data available to the public in whole or in part, and to the extent possible to provide the public with the same in electronic form. It is the policy of the Department of Defense to make its drawings, specifications, and other data available to the public in whole or in part, and to the extent possible to provide the public with the same in electronic form. It is the policy of the Department of Defense to make its drawings, specifications, and other data available to the public in whole or in part, and to the extent possible to provide the public with the same in electronic form.

Table with columns for DASH NO., ANI 73, ANI 74, ANI 75, ANI 76, ANI 77, ANI 78, ANI 79. Each column contains sub-columns for GRIP (e.g., 1/6, 1/8, 1/4) and LENGTH (e.g., 15/32, 17/32, 1/6, 1/8, 1/4, 1/2, 3/4, 1, 1-1/8, 1-1/4, 1-1/2, 1-3/4, 2, 2-1/8, 2-1/4, 2-1/2, 2-3/4, 3, 3-1/8, 3-1/4, 3-1/2, 3-3/4, 4, 4-1/8, 4-1/4, 4-1/2, 4-3/4, 5, 5-1/8, 5-1/4, 5-1/2, 5-3/4, 6, 6-1/8, 6-1/4, 6-1/2, 6-3/4, 7, 7-1/8, 7-1/4, 7-1/2, 7-3/4, 8, 8-1/8, 8-1/4, 8-1/2, 8-3/4, 9, 9-1/8, 9-1/4, 9-1/2, 9-3/4, 10). Rows are numbered 3 through 86.

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AIR FORCE
 NOTE: This drawing was approved by joint action of the Air Force and Navy Departments as the standard drawing for this product. This drawing supersedes all antecedent drawings for the same product and shall become effective for the government of aeronautical supplies, or for use in new designs, not later than 6 months after the latest date of approval shown. It may be put into effect, however, at an earlier date after promulgation.

DASH NO.	AN180		AN182		AN184		AN186	
	GRIP ±1/64	LENGTH ±1/32 -1/64	GRIP ±1/64	LENGTH ±1/32 -1/64	GRIP ±1/64	LENGTH ±1/32 -1/64	GRIP ±1/64	LENGTH ±1/32 -1/64
7	1-1/16	1-1/64						
10	3-1/16	1-9/64	1/16	1-5/32				
11	5-1/16	1-17/64	3/16	1-9/32	1/16	1-5/16		
12	7-1/16	1-25/64	5/16	1-13/32	3/16	1-7/16	1/8	1-1/2
13	9-1/16	1-33/64	7/16	1-17/32	5/16	1-9/16	1/4	1-5/8
14	11-1/16	1-41/64	5/8	1-21/32	7/16	1-11/16	3/8	1-3/4
15	13-1/16	1-49/64	11/16	1-25/32	9/16	1-13/16	1/2	1-7/8
16	15-1/16	1-57/64	13/16	1-29/32	11/16	1-15/16	5/8	2
17	1-1/16	2-1/64	15/16	2-1/32	13/16	2-1/16	3/4	2-1/8
20	1-3/16	2-9/64	1-1/16	2-5/32	15/16	2-3/16	7/8	2-1/4
21	1-5/16	2-17/64	1-3/16	2-9/32	1-1/16	2-5/16	1	2-3/8
22	1-7/16	2-25/64	1-5/16	2-13/32	1-3/16	2-7/16	1-1/8	2-1/2
23	1-9/16	2-33/64	1-7/16	2-17/32	1-5/16	2-9/16	1-1/4	2-5/8
24	1-11/16	2-41/64	1-9/16	2-21/32	1-7/16	2-11/16	1-3/8	2-3/4
25	1-13/16	2-49/64	1-11/16	2-25/32	1-9/16	2-13/16	1-1/2	2-7/8
26	1-15/16	2-57/64	1-13/16	2-29/32	1-11/16	2-15/16	1-5/8	3
27	2-1/16	3-1/64	1-15/16	3-1/32	1-13/16	3-1/16	1-3/4	3-1/8
30	2-3/16	3-9/64	2-1/16	3-5/32	1-15/16	3-3/16	1-7/8	3-1/4
31	2-5/16	3-17/64	2-3/16	3-9/32	2-1/16	3-5/16	2	3-3/8
32	2-7/16	3-25/64	2-5/16	3-13/32	2-3/16	3-7/16	2-1/8	3-1/2
33	2-9/16	3-33/64	2-7/16	3-17/32	2-5/16	3-9/16	2-1/4	3-5/8
34	2-11/16	3-41/64	2-9/16	3-21/32	2-7/16	3-11/16	2-3/8	3-3/4
35	2-13/16	3-49/64	2-11/16	3-25/32	2-9/16	3-13/16	2-1/2	3-7/8
36	2-15/16	3-57/64	2-13/16	3-29/32	2-11/16	3-15/16	2-5/8	4
37	3-1/16	4-1/64	2-15/16	4-1/32	2-13/16	4-1/16	2-3/4	4-1/8
40	3-3/16	4-9/64	3-1/16	4-5/32	2-15/16	4-3/16	2-7/8	4-1/4
41	3-5/16	4-17/64	3-3/16	4-9/32	3-1/16	4-5/16	3	4-3/8
42	3-7/16	4-25/64	3-5/16	4-13/32	3-3/16	4-7/16	3-1/8	4-1/2
43	3-9/16	4-33/64	3-7/16	4-17/32	3-5/16	4-9/16	3-1/4	4-5/8
44	3-11/16	4-41/64	3-9/16	4-21/32	3-7/16	4-11/16	3-3/8	4-3/4
45	3-13/16	4-49/64	3-11/16	4-25/32	3-9/16	4-13/16	3-1/2	4-7/8
46	3-15/16	4-57/64	3-13/16	4-29/32	3-11/16	4-15/16	3-5/8	5
47	4-1/16	5-1/64	3-15/16	5-1/32	3-13/16	5-1/16	3-3/4	5-1/8
50	4-3/16	5-9/64	4-1/16	5-5/32	3-15/16	5-3/16	3-7/8	5-1/4
51	4-5/16	5-17/64	4-3/16	5-9/32	4-1/16	5-5/16	4	5-3/8
52	4-7/16	5-25/64	4-5/16	5-13/32	4-3/16	5-7/16	4-1/8	5-1/2
53	4-9/16	5-33/64	4-7/16	5-17/32	4-5/16	5-9/16	4-3/4	5-5/8
54	4-11/16	5-41/64	4-9/16	5-21/32	4-7/16	5-11/16	4-3/8	5-3/4
55	4-13/16	5-49/64	4-11/16	5-25/32	4-9/16	5-13/16	4-3/2	5-7/8
56	4-15/16	5-57/64	4-13/16	5-29/32	4-11/16	5-15/16	4-5/8	6
57	5-1/16	6-1/64	4-15/16	6-1/32	4-13/16	6-1/16	4-3/4	6-1/8
60	5-3/16	6-9/64	5-1/16	6-5/32	4-15/16	6-3/16	4-7/8	6-1/4
61	5-5/16	6-17/64	5-3/16	6-9/32	5-1/16	6-5/16	5	6-3/8
62	5-7/16	6-25/64	5-5/16	6-13/32	5-3/16	6-7/16	5-1/8	6-1/2
63	5-9/16	6-33/64	5-7/16	6-17/32	5-5/16	6-9/16	5-1/4	6-5/8
64	5-11/16	6-41/64	5-9/16	6-21/32	5-7/16	6-11/16	5-3/8	6-3/4
65	5-13/16	6-49/64	5-11/16	6-25/32	5-9/16	6-13/16	5-1/2	6-7/8
66	5-15/16	6-57/64	5-13/16	6-29/32	5-11/16	6-15/16	5-5/8	7
67	6-1/16	7-1/64	5-15/16	7-1/32	5-13/16	7-1/16	5-3/4	7-1/8
70	6-3/16	7-9/64	6-1/16	7-5/32	5-15/16	7-3/16	5-7/8	7-1/4
71	6-5/16	7-17/64	6-3/16	7-9/32	6-1/16	7-5/16	6	7-3/8
72	6-7/16	7-25/64	6-5/16	7-13/32	6-3/16	7-7/16	6-1/8	7-1/2
73	6-9/16	7-33/64	6-7/16	7-17/32	6-5/16	7-9/16	6-1/4	7-5/8
74	6-11/16	7-41/64	6-9/16	7-21/32	6-7/16	7-11/16	6-3/8	7-3/4
75	6-13/16	7-49/64	6-11/16	7-25/32	6-9/16	7-13/16	6-1/2	7-7/8
76	6-15/16	7-57/64	6-13/16	7-29/32	6-11/16	7-15/16	6-5/8	8
77	7-1/16	8-1/64	6-15/16	8-1/32	6-13/16	8-1/16	6-3/4	8-1/8
80	7-3/16	8-9/64	7-1/16	8-5/32	6-15/16	8-3/16	6-7/8	8-1/4
81							7	8-3/8
82							7-1/8	8-1/2

PROCUREMENT SPECIFICATION

AIR FORCE-NAVY AERONAUTICAL STANDARD

ANM73 THRU AN186

AN-B-3

BO' T

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APPROVED 29 Mar 49 REVISED