

BASIC PART NO	THREAD T	A DIA		B		C REF	D		E REF	F		H DIA	J DRILL +.010 - .000	K DRILL +.010 - .000
		MAX	MIN	MAX	MIN		MAX	MIN		MAX	MIN			
AN3	NO. 10-32 UNF-3A	.189	.186	.377	.365	.430	.141	.109	7/16	.047	.015	.335	.070	.046
AN4	1/4-28 UNF-3A	.249	.246	.440	.428	.510	.172	.140	5/16	.047	.015	.398	.076	.046
AN5	5/16-24 UNF-3A	.312	.309	.502	.490	.580	.204	.172	23/64	.063	.031	.460	.076	.070
AN6	3/8-24 UNF-3A	.374	.371	.565	.553	.650	.235	.203	7/16	.063	.031	.523	.106	.070
AN7	7/16-20 UNF-3A	.437	.433	.627	.615	.720	.266	.234	31/64	.063	.031	.585	.106	.070
AN8	1/2-20 UNF-3A	.499	.495	.752	.740	.870	.297	.265	39/64	.063	.031	.710	.106	.070
AN9	9/16-18 UNF-3A	.562	.558	.877	.865	1.010	.328	.296	21/32	.078	.046	.835	.141	.070
AN10	5/8-18 UNF-3A	.624	.620	.940	.928	1.090	.360	.328	47/64	.078	.046	.898	.141	.070
AN12	3/4-16 UNF-3A	.749	.744	1.066	1.053	1.230	.422	.390	7/8	.078	.046	1.023	.141	.070
AN14	7/8-14 UNF-3A	.874	.869	1.253	1.240	1.440	.485	.453	63/64	.078	.046	1.210	.141	.070
(d) AN16	1-14 NF-3A	.999	.993	1.441	1.428	1.660	.547	.515	1-3/32	.094	.062	1.398	.141	.070
AN17	1-12 UNF-3A	.999	.993	1.441	1.428	1.660	.547	.515	1-3/32	.094	.062	1.398	.141	.070
AN18	1-1/8-12 UNF-3A	1.124	1.118	1.628	1.615	1.880	.610	.578	1-3/16	.110	.078	1.585	.141	.070
AN20	1-1/4-12 UNF-3A	1.249	1.243	1.815	1.802	2.090	.672	.640	1-3/8	.110	.078	1.772	.141	.070

SEE SHEET 3 FOR NOTE (b).

- (a) MARKING MAY BE EITHER RAISED OR DEPRESSED. THE HEIGHT OR DEPTH OF THE MARKINGS SHALL NOT EXCEED THE FOLLOWING VALUES: .025 INCH FOR 9/16 DIAMETER BOLTS AND SMALLER; .030 INCH FOR 5/8 DIAMETER BOLTS AND LARGER. HEAD MARKING MAY INCLUDE MANUFACTURER'S MARKINGS.
- (c) THE DIAMETER OF THE WASHER FACE SHALL NOT EXCEED THE ACTUAL WIDTH ACROSS FLATS.
- (d) 1-14NF THREAD PITCH INACTIVE FOR DESIGN AFTER 15 JUNE 1966.

MATERIAL: NON-CORROSION RESISTANT STEEL, CORROSION-RESISTANT STEEL OR ALUMINUM ALLOY. SEE PROCUREMENT SPECIFICATION.  
FINISH: SEE PROCUREMENT SPECIFICATION.

- ADD "C" BEFORE DASH NUMBER FOR CORROSION-RESISTANT STEEL BOLT.
- ADD "DD" BEFORE DASH NUMBER FOR ALUMINUM ALLOY BOLT.
- 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:

- AN6-10 = 3/8 NON-CORROSION RESISTANT STEEL BOLT 1-5/64 LONG, 7/16 GRIP WITH DRILLED SHANK ONLY. SEE ILLUSTRATION.
- AN6C10 = 3/8 CORROSION-RESISTANT STEEL BOLT 1-5/64 LONG, 7/16 GRIP WITH DRILLED SHANK ONLY. SEE ILLUSTRATION.
- AN6DD10 = 3/8 ALUMINUM ALLOY BOLT 1-5/64 LONG, 7/16 GRIP WITH DRILLED SHANK ONLY. SEE ILLUSTRATION.
- AN6DD10A = 3/8 ALUMINUM ALLOY BOLT 1-5/64 LONG, 7/16 GRIP, UNDRILLED SHANK AND HEAD. SEE ILLUSTRATION.
- AN6DD10H = 3/8 ALUMINUM ALLOY BOLT 1-5/64 LONG, 7/16 GRIP WITH DRILLED HEAD AND SHANK. SEE ILLUSTRATION.
- AN6DD10HA = 3/8 ALUMINUM ALLOY BOLT 1-5/64 LONG, 7/16 GRIP WITH DRILLED HEAD ONLY. SEE ILLUSTRATION.

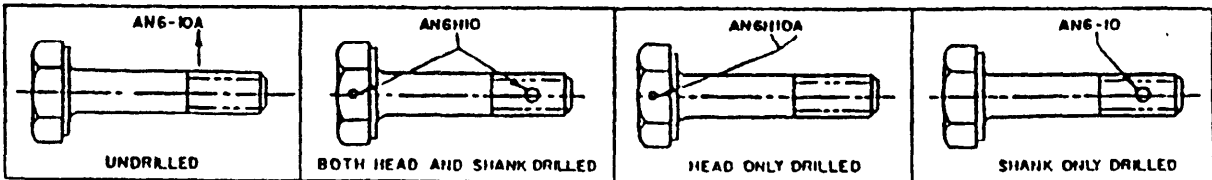


ILLUSTRATION OF DRILLED AND UNDRILLED BOLTS AND PART NUMBERS

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 ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS ±.010, ANGLES ±5°.

(2) FOR CHANGES SEE SHEETS 1 AND 2

PREPARING ACTIVITY NAVY - AS CUSTOMERS ARMY - AV NAVY - AS AIR FORCE - 99 DLA - 15	MILITARY SPECIFICATION SHEET TITLE BOLT - MACHINE, AIRCRAFT	SPECIFICATION SHEET NUMBER AN3 THRU AN20 14 JAN 91 SUPERSEDING AN3 THRU AN20 26 FEB 1990 AMSC- N/A FSC 3308
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DISTRIBUTION STATEMENT A Approved for public release, distribution is unlimited

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THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THIS ISSUE OF THE DODDSS SPECIFIED IN THE SOLICITATION MIL - 8 - 8812

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

Form approved  
OMB No 0704-0188

(12)

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DASH NO	AN3		AN4		AN5		AN6		AN7		AN8		AN9	
	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	GRIP ±1/64	LENGTH +1/32 -1/64	GRIP ±1/64	LENGTH +1/32 -1/64	GRIP ±1/64	LENGTH +1/32 -1/64
3	1/16	15/32	1/16	15/32										
4	1/8	17/32	1/16	17/32	1/16	19/32								
5	1/4	21/32	3/16	21/32	3/16	23/32	1/16	45/64	1/16	23/32	1/16	27/32	1/16	31/32
6	3/8	25/32	5/16	25/32	5/16	27/32	3/16	53/64	3/16	27/32	1/16	27/32	1/16	31/32
7	1/2	29/32	7/16	29/32	7/16	31/32	5/16	61/64	5/16	31/32	3/16	31/32	1/8	1- 1/32
10	5/8	1- 1/32	9/16	1- 1/32	9/16	1- 3/32	7/16	1- 5/64	7/16	1- 3/32	5/16	1- 3/32	1/4	1- 5/32
11	3/4	1- 5/32	11/16	1- 5/32	11/16	1- 7/32	9/16	1-13/64	9/16	1- 7/32	7/16	1- 7/32	3/8	1- 9/32
12	7/8	1- 9/32	13/16	1- 9/32	13/16	1-11/32	11/16	1-21/64	11/16	1-11/32	9/16	1-11/32	1/2	1-13/32
13	1	1-13/32	15/16	1-13/32	15/16	1-15/32	13/16	1-29/64	13/16	1-15/32	11/16	1-15/32	5/8	1-17/32
14	1-1/8	1-17/32	1- 1/16	1-17/32	1- 1/16	1-19/32	15/16	1-37/64	15/16	1-19/32	13/16	1-19/32	3/4	1-21/32
15	1-1/4	1-21/32	1- 3/16	1-21/32	1- 3/16	1-23/32	1- 1/16	1-45/64	1- 1/16	1-23/32	15/16	1-23/32	7/8	1-25/32
16	1-3/8	1-25/32	1- 5/16	1-25/32	1- 5/16	1-27/32	1- 3/16	1-53/64	1- 3/16	1-27/32	1- 1/16	1-27/32	1	1-29/32
17	1-1/2	1-29/32	1- 7/16	1-29/32	1- 7/16	1-31/32	1- 5/16	1-61/64	1- 5/16	1-31/32	1-3/16	1-31/32	1-1/8	2- 1/32
20	1-5/8	2- 1/32	1- 9/16	2- 1/32	1- 9/16	2- 3/32	1- 7/16	2- 5/64	1- 7/16	2- 3/32	1-5/16	2- 3/32	1-1/4	2- 5/32
21	1-3/4	2- 5/32	1-11/16	2- 5/32	1-11/16	2- 7/32	1- 9/16	2-13/64	1- 9/16	2- 7/32	1-7/16	2- 7/32	1-3/8	2- 9/32
22	1-7/8	2- 9/32	1-13/16	2- 9/32	1-13/16	2-11/32	1-11/16	2-21/64	1-11/16	2-11/32	1-9/16	2-11/32	1-1/2	2-13/32
23	2	2-13/32	1-15/16	2-13/32	1-15/16	2-15/32	1-13/16	2-29/64	1-13/16	2-15/32	1-11/16	2-15/32	1-5/8	2-17/32
24	2-1/8	2-17/32	2- 1/16	2-17/32	2- 1/16	2-19/32	1-15/16	2-37/64	1-15/16	2-19/32	1-13/16	2-19/32	1-3/4	2-21/32
25	2-1/4	2-21/32	2- 3/16	2-21/32	2- 3/16	2-23/32	2- 1/16	2-45/64	2- 1/16	2-23/32	1-15/16	2-23/32	1-7/8	2-25/32
26	2-3/8	2-25/32	2- 5/16	2-25/32	2- 5/16	2-27/32	2- 3/16	2-53/64	2- 3/16	2-27/32	2- 1/16	2-27/32	2	2-29/32
27	2-1/2	2-29/32	2- 7/16	2-29/32	2- 7/16	2-31/32	2- 5/16	2-61/64	2- 5/16	2-31/32	2-3/16	2-31/32	2-1/8	3- 1/32
30	2-5/8	3- 1/32	2- 9/16	3- 1/32	2- 9/16	3- 3/32	2- 7/16	3- 5/64	2- 7/16	3- 3/32	2-5/16	3- 3/32	2-1/4	3- 5/32
31	2-3/4	3- 5/32	2-11/16	3- 5/32	2-11/16	3- 7/32	2- 9/16	3-13/64	2- 9/16	3- 7/32	2-7/16	3- 7/32	2-3/8	3- 9/32
32	2-7/8	3- 9/32	2-13/16	3- 9/32	2-13/16	3-11/32	2-11/16	3-21/64	2-11/16	3-11/32	2-9/16	3-11/32	2-1/2	3-13/32
33	3	3-13/32	2-15/16	3-13/32	2-15/16	3-15/32	2-13/16	3-29/64	2-13/16	3-15/32	2-11/16	3-15/32	2-5/8	3-17/32
34	3-1/8	3-17/32	3- 1/16	3-17/32	3- 1/16	3-19/32	2-15/16	3-37/64	2-15/16	3-19/32	2-13/16	3-19/32	2-3/4	3-21/32
35	3-1/4	3-21/32	3- 3/16	3-21/32	3- 3/16	3-23/32	3- 1/16	3-45/64	3- 1/16	3-23/32	2-15/16	3-23/32	2-7/8	3-25/32
36	3-3/8	3-25/32	3- 5/16	3-25/32	3- 5/16	3-27/32	3- 3/16	3-53/64	3- 3/16	3-27/32	3- 1/16	3-27/32	3	3-29/32
37	3-1/2	3-29/32	3- 7/16	3-29/32	3- 7/16	3-31/32	3- 5/16	3-61/64	3- 5/16	3-31/32	3-3/16	3-31/32	3-1/8	4- 1/32
40	3-5/8	4- 1/32	3- 9/16	4- 1/32	3- 9/16	4- 3/32	3- 7/16	4- 5/64	3- 7/16	4- 3/32	3-5/16	4- 3/32	3-1/4	4- 5/32
41	3-3/4	4- 5/32	3-11/16	4- 5/32	3-11/16	4- 7/32	3- 9/16	4-13/64	3- 9/16	4- 7/32	3-7/16	4- 7/32	3-3/8	4- 9/32
42	3-7/8	4- 9/32	3-13/16	4- 9/32	3-13/16	4-11/32	3-11/16	4-21/64	3-11/16	4-11/32	3-9/16	4-11/32	3-1/2	4-13/32
43	4	4-13/32	3-15/16	4-13/32	3-15/16	4-15/32	3-13/16	4-29/64	3-13/16	4-15/32	3-11/16	4-15/32	3-5/8	4-17/32
44	4-1/8	4-17/32	4- 1/16	4-17/32	4- 1/16	4-19/32	3-15/16	4-37/64	3-15/16	4-19/32	3-13/16	4-19/32	3-3/4	4-21/32
45	4-1/4	4-21/32	4- 3/16	4-21/32	4- 3/16	4-23/32	4- 1/16	4-45/64	4- 1/16	4-23/32	3-15/16	4-23/32	3-7/8	4-25/32
46	4-3/8	4-25/32	4- 5/16	4-25/32	4- 5/16	4-27/32	4- 3/16	4-53/64	4- 3/16	4-27/32	4- 1/16	4-27/32	4	4-29/32
47	4-1/2	4-29/32	4- 7/16	4-29/32	4- 7/16	4-31/32	4- 5/16	4-61/64	4- 5/16	4-31/32	4-3/16	4-31/32	4-1/8	5- 1/32
50	4-5/8	5- 1/32	4- 9/16	5- 1/32	4- 9/16	5- 3/32	4- 7/16	5- 5/64	4- 7/16	5- 3/32	4-5/16	5- 3/32	4-1/4	5- 5/32
51	4-3/4	5- 5/32	4-11/16	5- 5/32	4-11/16	5- 7/32	4- 9/16	5-13/64	4- 9/16	5- 7/32	4-7/16	5- 7/32	4-3/8	5- 9/32
52	4-7/8	5- 9/32	4-13/16	5- 9/32	4-13/16	5-11/32	4-11/16	5-21/64	4-11/16	5-11/32	4-9/16	5-11/32	4-1/2	5-13/32
53	5	5-13/32	4-15/16	5-13/32	4-15/16	5-15/32	4-13/16	5-29/64	4-13/16	5-15/32	4-11/16	5-15/32	4-5/8	5-17/32
54	5-1/8	5-17/32	5- 1/16	5-17/32	5- 1/16	5-19/32	4-15/16	5-37/64	4-15/16	5-19/32	4-13/16	5-19/32	4-3/4	5-21/32
55	5-1/4	5-21/32	5- 3/16	5-21/32	5- 3/16	5-23/32	5- 1/16	5-45/64	5- 1/16	5-23/32	4-15/16	5-23/32	4-7/8	5-25/32
56	5-3/8	5-25/32	5- 5/16	5-25/32	5- 5/16	5-27/32	5- 3/16	5-53/64	5- 3/16	5-27/32	5- 1/16	5-27/32	5	5-29/32
57	5-1/2	5-29/32	5- 7/16	5-29/32	5- 7/16	5-31/32	5- 5/16	5-61/64	5- 5/16	5-31/32	5-3/16	5-31/32	5-1/8	6- 1/32
60	5-5/8	6- 1/32	5- 9/16	6- 1/32	5- 9/16	6- 3/32	5- 7/16	6- 5/64	5- 7/16	6- 3/32	5-5/16	6- 3/32	5-1/4	6- 5/32
61	5-3/4	6- 5/32	5-11/16	6- 5/32	5-11/16	6- 7/32	5- 9/16	6-13/64	5- 9/16	6- 7/32	5-7/16	6- 7/32	5-3/8	6- 9/32
62	5-7/8	6- 9/32	5-13/16	6- 9/32	5-13/16	6-11/32	5-11/16	6-21/64	5-11/16	6-11/32	5-9/16	6-11/32	5-1/2	6-13/32
63	6	6-13/32	5-15/16	6-13/32	5-15/16	6-15/32	5-13/16	6-29/64	5-13/16	6-15/32	5-11/16	6-15/32	5-5/8	6-17/32
64	6-1/8	6-17/32	6- 1/16	6-17/32	6- 1/16	6-19/32	5-15/16	6-37/64	5-15/16	6-19/32	5-13/16	6-19/32	5-3/4	6-21/32
65	6-1/4	6-21/32	6- 3/16	6-21/32	6- 3/16	6-23/32	6- 1/16	6-45/64	6- 1/16	6-23/32	5-15/16	6-23/32	5-7/8	6-25/32
66	6-3/8	6-25/32	6- 5/16	6-25/32	6- 5/16	6-27/32	6- 3/16	6-53/64	6- 3/16	6-27/32	6- 1/16	6-27/32	6	6-29/32
67	6-1/2	6-29/32	6- 7/16	6-29/32	6- 7/16	6-31/32	6- 5/16	6-61/64	6- 5/16	6-31/32	6-3/16	6-31/32	6-1/8	7- 1/32
70	6-5/8	7- 1/32	6- 9/16	7- 1/32	6- 9/16	7- 3/32	6- 7/16	7- 5/64	6- 7/16	7- 3/32	6-5/16	7- 3/32	6-1/4	7- 5/32
71	6-3/4	7- 5/32	6-11/16	7- 5/32	6-11/16	7- 7/32	6- 9/16	7-13/64	6- 9/16	7- 7/32	6-7/16	7- 7/32	6-3/8	7- 9/32
72	6-7/8	7- 9/32	6-13/16	7- 9/32	6-13/16	7-11/32	6-11/16	7-21/64	6-11/16	7-11/32	6-9/16	7-11/32	6-1/2	7-13/32
73	7	7-13/32	6-15/16	7-13/32	6-15/16	7-15/32	6-13/16	7-29/64	6-13/16	7-15/32	6-11/16	7-15/32	6-5/8	7-17/32
74	7-1/8	7-17/32	7- 1/16	7-17/32	7- 1/16	7-19/32	6-15/16	7-37/64	6-15/16	7-19/32	6-13/16	7-19/32	6-3/4	7-21/32
75	7-1/4	7-21/32	7- 3/16	7-21/32	7- 3/16	7-23/32	7- 1/16	7-45/64	7- 1/16	7-23/32	6-15/16	7-23/32	6-7/8	7-25/32
76	7-3/8	7-25/32	7- 5/16	7-25/32	7- 5/16	7-27/32	7- 3/16	7-53/64	7- 3/16	7-27/32	7- 1/16	7-27/32	7-29/32	7-29/32
77	7-1/2	7-29/32	7- 7/16	7-29/32	7- 7/16	7-31/32	7- 5/16	7-61/64	7- 5/16	7-31/32	7-3/16	7-31/32	7-1/8	8- 1/32
80	7-5/8	8- 1/32	7- 9/16	8- 1/32	7- 9/16	8- 3/32	7- 7/16	8- 5/64	7- 7/16	8- 3/32	7-5/16	8- 3/32	7-1/4	8- 5/32
81						7-11/16	8- 7/32				7-7/16	8- 7/32		
82											7-9/16	8-11/32		
83											7-11/16	8-15/32		
84											7-13/16	8-19/32		
85											7-15/16	8-23/32		
86											8- 1/16	8-27/32		
87											8-3/16	8-31/32		

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE

PREPARING ACTIVITY NAVY - AS	MILITARY SPECIFICATION SHEET	SPECIFICATION SHEET NUMBER
CUSTODIANS ARMY - AV NAVY - AS	TITLE	AN3 THRU AN20 14 JAN 91
AIR FORCE - 99 DLA - 15	BOLT - MACHINE, AIRCRAFT	SUPERSEDING AN3 THRU AN20 26 FEB 1990
REVIEW USER	AMSC - N/A	FSC: 5306
PROJECT NUMBER 5306-1415		
DISTRIBUTION STATEMENT A Approved for public release, distribution is unlimited		Page 2 of 4

(12)

UNCLASSIFIED

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DASH NO	AN10		AN12		AN14		AN16		AN17		AN18		AN20	
	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	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	1/16	1- 1/64												
10	3/16	1- 9/64	1/16	1- 5/32										
11	5/16	1-17/64	3/16	1- 9/32	1/16	1- 5/16								
12	7/16	1-25/64	5/16	1-13/32	3/16	1- 7/16	1/8	1-1/2	1/8	1-1/2				
13	9/16	1-33/64	7/16	1-17/32	5/16	1- 9/16	1/4	1-5/8	1/4	1-5/8	1/16	1- 9/16		
14	11/16	1-41/64	9/16	1-21/32	7/16	1-11/16	3/8	1-3/4	3/8	1-3/4	3/16	1-11/16		
15	13/16	1-49/64	11/16	1-25/32	9/16	1-13/16	1/2	1-7/8	1/2	1-7/8	5/16	1-13/16	1/8	1-13/16
16	15/16	1-57/64	13/16	1-29/32	11/16	1-15/16	5/8	2	5/8	2	7/16	1-15/16	1/4	1-15/16
17	1- 1/16	2- 1/64	15/16	2- 1/32	13/16	2- 1/16	3/4	2-1/8	3/4	2-1/8	9/16	2- 1/16	3/8	2- 1/16
20	1- 3/16	2- 9/64	1- 1/16	2- 5/32	15/16	2- 3/16	7/8	2-1/4	7/8	2-1/4	11/16	2- 3/16	1/2	2- 3/16
21	1- 5/16	2-17/64	1- 3/16	2- 9/32	1- 1/16	2- 5/16	1	2-3/8	1	2-3/8	13/16	2- 5/16	5/8	2- 5/16
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	1-1/8	2-1/2	15/16	2- 7/16	3/4	2- 7/16
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	1-1/4	2-5/8	1- 1/16	2- 9/16	7/8	2- 9/16
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	1-3/8	2-3/4	1- 3/16	2-11/16	1	2-11/16
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	1-1/2	2-7/8	1- 5/16	2-13/16	1-1/8	2-13/16
26	1-15/16	2-57/64	1-13/16	2-29/32	1-11/16	2-15/16	1-5/8	3	1-5/8	3	1- 7/16	2-15/16	1-1/4	2-15/16
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	1-3/4	3-1/8	1- 9/16	3- 1/16	1-3/8	3- 1/16
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	1-7/8	3-1/4	1-11/16	3- 3/16	1-1/2	3- 3/16
31	2- 5/16	3-17/64	2- 3/16	3- 9/32	2- 1/16	3- 5/16	2	3-3/8	2	3-3/8	1-13/16	3- 5/16	1-5/8	3- 5/16
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	2-1/8	3-1/2	1-15/16	3- 7/16	1-3/4	3- 7/16
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	2-1/4	3-5/8	2- 1/16	3- 9/16	1-7/8	3- 9/16
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	2-3/8	3-3/4	2- 3/16	3-11/16	2	3-11/16
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	2-1/2	3-7/8	2- 5/16	3-13/16	2-1/8	3-13/16
36	2-15/16	3-57/64	2-13/16	3-29/32	2-11/16	3-15/16	2-5/8	4	2-5/8	4	2- 7/16	3-15/16	2-3/4	3-15/16
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	2-3/4	4-1/8	2- 9/16	4- 1/16	2-3/4	4- 1/16
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	2-7/8	4-1/4	2-11/16	4- 3/16	2-1/2	4- 3/16
41	3- 5/16	4-17/64	3- 3/16	4- 9/32	3- 1/16	4- 5/16	3	4-3/8	3	4-3/8	2-13/16	4- 5/16	2-5/8	4- 5/16
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	3-1/8	4-1/2	2-15/16	4- 7/16	2-3/4	4- 7/16
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	3-1/4	4-5/8	3- 1/16	4- 9/16	2-7/8	4- 9/16
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	3-3/8	4-3/4	3- 3/16	4-11/16	3	4-11/16
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	3-1/2	4-7/8	3- 5/16	4-13/16	3-1/8	4-13/16
46	3-15/16	4-57/64	3-13/16	4-29/32	3-11/16	4-15/16	3-5/8	5	3-5/8	5	3- 7/16	4-15/16	3-1/4	4-15/16
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	3-3/4	5-1/8	3- 9/16	5- 1/16	3-3/8	5- 1/16
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	3-7/8	5-1/4	3-11/16	5- 3/16	3-1/2	5- 3/16
51	4- 5/16	5-17/64	4- 3/16	5- 9/32	4- 1/16	5- 5/16	4	5-3/8	4	5-3/8	3-13/16	5- 5/16	3-5/8	5- 5/16
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	4-1/8	5-1/2	3-15/16	5- 7/16	3-3/4	5- 7/16
53	4- 9/16	5-33/64	4- 7/16	5-17/32	4- 5/16	5- 9/16	4-1/4	5-5/8	4-1/4	5-5/8	4- 1/16	5- 9/16	3-7/8	5- 9/16
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	4-3/8	5-3/4	4- 3/16	5-11/16	4	5-11/16
55	4-13/16	5-49/64	4-11/16	5-25/32	4- 9/16	5-13/16	4-1/2	5-7/8	4-1/2	5-7/8	4- 5/16	5-13/16	4-1/8	5-13/16
56	4-15/16	5-57/64	4-13/16	5-29/32	4-11/16	5-15/16	4-5/8	6	4-5/8	6	4- 7/16	5-15/16	4-1/4	5-15/16
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	4-3/4	6-1/8	4- 9/16	6- 1/16	4-3/8	6- 1/16
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	4-7/8	6-1/4	4-11/16	6- 3/16	4-1/2	6- 3/16
61	5- 5/16	6-17/64	5- 3/16	6- 9/32	5- 1/16	6- 5/16	5	6-3/8	5	6-3/8	4-13/16	6- 5/16	4-5/8	6- 5/16
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	5-1/8	6-1/2	4-15/16	6- 7/16	4-3/4	6- 7/16
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	5-1/4	6-5/8	5- 1/16	6- 9/16	4-7/8	6- 9/16
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	5-3/8	6-3/4	5- 3/16	6-11/16	5	6-11/16
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	5-1/2	6-7/8	5- 5/16	6-13/16	5-1/8	6-13/16
66	5-15/16	6-57/64	5-13/16	6-29/32	5-11/16	6-15/16	5-5/8	7	5-5/8	7	5- 7/16	6-15/16	5-1/4	6-15/16
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	5-3/4	7-1/8	5- 9/16	7- 1/16	5-3/8	7- 1/16
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	5-7/8	7-1/4	5-11/16	7- 3/16	5-1/2	7- 3/16
71	6- 5/16	7-17/64	6- 3/16	7- 9/32	6- 1/16	7- 5/16	6	7-3/8	6	7-3/8	5-13/16	7- 5/16	5-5/8	7- 5/16
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	6-1/8	7-1/2	5-15/16	7- 7/16	5-3/4	7- 7/16
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	6-1/4	7-5/8	6- 1/16	7- 9/16	5-7/8	7- 9/16
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	6-3/8	7-3/4	6- 3/16	7-11/16	6	7-11/16
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	6-1/2	7-7/8	6- 5/16	7-13/16	6-1/8	7-13/16
76	6-15/16	7-57/64	6-13/16	7-29/32	6-11/16	7-15/16	6-5/8	8	6-5/8	8	6- 7/16	7-15/16	6-1/4	7-15/16
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	6-3/4	8-1/8	6- 9/16	8- 1/16	6-3/8	8- 1/16
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	6-7/8	8-1/4	6-11/16	8- 3/16	6-1/2	8- 3/16
81							7	8-3/8	7	8-3/8	6-13/16	8- 5/16	6-5/8	8- 5/16
82							7-1/8	8-1/2	7-1/8	8-1/2				

(b) GRIP LENGTH OF BOLTS SHALL BE MEASURED FROM THE UNDERSIDE OF THE HEAD TO THE END OF THE FULL CYLINDRICAL PORTION OF THE SHANK. COMPLETE THREADS SHALL BEGIN WITHIN TWO THREAD PITCH MAXIMUM. TWO THREAD PITCH MAXIMUM MAY CONSIST OF INCOMPLETE THREAD OR EXTRUSION ANGLE.

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE

PREPARING ACTIVITY NAVY - AS	MILITARY SPECIFICATION SHEET	SPECIFICATION SHEET NUMBER
CUSTODIANS ARMY - AV NAVY - AS	TITLE	AN3 THRU AN20 14 JAN 91
AIR FORCE - 99 DLA - IS	BOLT - MACHINE, AIRCRAFT	SUPERSEDING AN3 THRU AN20 26 FEB 90
REVIEW USER		AMSC - N/A FSC - 5306
PROJECT NUMBER 5306-M15		

DISTRIBUTION STATEMENT A Approved for public release distribution is unlimited

Page 3 of 4

Form approved  
OMB No. 0704-0188

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODISS SPECIFIED IN THE SOLICITATION MIL-B-6812

BASIC PART NO	THREAD	RATED STRENGTH (POUNDS)					
		ULTIMATE TENSILE AT ROOT DIA		YIELD TENSILE AT ROOT DIA		SINGLE SHEAR AT FULL DIA	
		STEEL	AL ALLOY	STEEL	AL ALLOY	STEEL	AL ALLOY
AN3	NO 10-32 UNF-3A	2,210	1,100	1,690	710	2,125	990
AN4	1/4-28 UNF-3A	4,080	2,030	3,130	1,310	3,680	1,715
AN5	5/16-24 UNF-3A	6,500	3,220	4,980	2,080	5,750	2,685
AN6	3/8-24 UNF-3A	10,100	5,020	7,740	3,240	8,280	3,870
AN7	7/16-20 UNF-3A	13,600	6,750	10,430	4,350	11,250	5,250
AN8	1/2-20 UNF-3A	18,500	9,180	14,190	5,920	14,700	6,850
AN9	9/16-18 UNF-3A	23,600	11,700	18,100	7,550	18,700	8,700
AN10	5/8-18 UNF-3A	30,100	14,900	23,080	9,610	23,000	10,750
AN12	3/4-16 UNF-3A	44,000	21,800	33,730	14,100	33,150	15,500
AN14	7/8-14 UNF-3A	60,000	29,800	46,000	19,200	45,050	21,050
AN16	1-14 UNF-3A	80,700	40,000	61,870	25,800	58,900	27,500
AN17	1-12 UNF-3A	80,700	40,000	61,870	25,800	58,900	27,500
AN18	1-1/8-12 UNF-3A	101,800	50,500	78,050	32,600	73,750	34,500
AN20	1-1/4-12 UNF-3A	130,200	64,400	99,820	41,500	91,050	42,500

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE

PREPARING ACTIVITY NAVY-AS CUSTODIANS ARMY-AV NAVY-AS AIR FORCE-99 DLA-IS	MILITARY SPECIFICATION SHEET TITLE BOLT - MACHINE, AIRCRAFT	SPECIFICATION SHEET NUMBER AN3 THRU AN20 14 JAN 91 SUPERSEDING AN3 THRU AN20 26 FEB 90 AMSC- N/A FSC: 5306
DISTRIBUTION STATEMENT <u>A</u> Approved for public release distribution is unlimited		Page <u>4</u> of <u>4</u>

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