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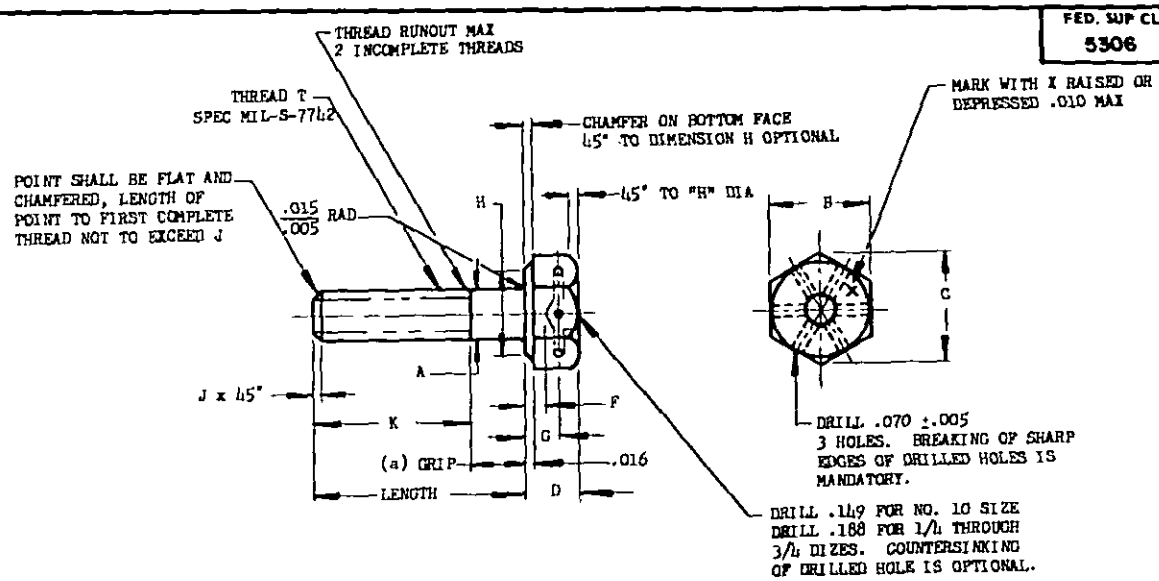
5306



SIZE DASH NO.	THREAD T	A DIA		B		(b) C REF	D		F MIN	G +.000 -.010	H DIA		J		RATED STRENGTH, LBS (c) TENSION AT ROOT DIA	SINGLE SHEAR AT FULL DIA
		MAX	MIN	MAX	MIN		MAX	MIN			MAX	MIN	MAX	MIN		
03-	NO. 10-32 NF-3A	.189	.186	.376	.367	.430	.203	.172	.039	.120	.391	.359	.047	.015	2 210	2 125
04-	1/4-28 UNF-3A	.249	.246	.439	.430	.510	.234	.203	.052	.144	.454	.422	.047	.015	4 080	3 680
05-	5/16-24 UNF-3A	.312	.309	.501	.492	.580	.297	.266	.078	.172	.516	.484	.063	.031	6 500	5 750
06-	3/8-24 UNF-3A	.374	.371	.564	.554	.650	.297	.266	.078	.172	.579	.547	.063	.031	10 100	8 800
07-	7/16-20 UNF-3A	.437	.433	.689	.679	.790	.344	.313	.078	.172	.704	.672	.063	.031	13 600	11 250
08-	1/2-20 UNF-3A	.499	.495	.751	.741	.870	.391	.359	.094	.188	.766	.734	.063	.031	18 500	14 700
09-	9/16-18 UNF-3A	.562	.558	.876	.865	1.010	.438	.406	.109	.203	.891	.859	.078	.046	23 600	18 700
10-	5/8-18 UNF-3A	.624	.620	.939	.928	1.090	.484	.453	.140	.234	.954	.922	.078	.046	30 100	23 000
12-	3/4-16 UNF-3A	.749	.744	1.064	1.053	1.230	.578	.547	.187	.281	1.079	1.047	.078	.046	44 000	33 150

(a) 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.

(b) REFERENCE DIMENSIONS ARE FOR DESIGN PURPOSES ONLY AND ARE NOT AN INSPECTION REQUIREMENT.

(c) MINIMUM YIELD STRENGTH = 76.7 PERCENT OF RATED TENSION.

MATERIAL: STEEL, SEE PROCUREMENT SPECIFICATION.

PLATING: CADMIUM PLATE QQ-P-416, TYPE 2, CLASS 3.

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

EXAMPLE OF PART NUMBERS: MS20073-05-07 = 5/16-24 UNF-3A BOLT, .375 GRIP, .922 LONG.

UNASSIGNED DASH NUMBERS SHALL NOT BE USED.

THE ACROSS FLAT DIMENSIONS OF THE HEXAGON HEADS ARE IN AGREEMENT WITH AMERICAN-BRITISH-CANADIAN AIR STD 17/2.

INTERCHANGEABILITY RELATION WITH AN73 THROUGH AN81 PARTS: MS20073 (ASG) PARTS AND AN73 THROUGH AN81 PARTS OF LIKE THREAD AND GRIP LENGTHS ARE UNIVERSALLY FUNCTIONALLY AND DIMENSIONALLY INTERCHANGEABLE.

THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.

REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.

THIS DOCUMENT HAS BEEN PROMULGATED BY THE DEPARTMENT OF DEFENSE AS THE MILITARY STANDARD TO LIMIT THE SELECTION OF THE ITEM, PRODUCT, OR DESIGN COVERED HEREIN IN ENGINEERING, DESIGN, AND PROCUREMENT. THIS STANDARD SHALL BECOME EFFECTIVE NOT LATER THAN 90 DAYS AFTER THE LATEST DATE OF APPROVAL SHOWN.

APPROVED 16 SEP 58 REVISED (A) 30 JUL 63 (B) 12 APRIL 1984

P. A. AF-82 (B) Other Cust NAVY-AS ARMY-AV AF-99	INTERNATIONAL INTEREST STANAG	TITLE BOLT, MACHINE, AIRCRAFT, DRILLED HEAD, FINE THREAD	MILITARY STANDARD MS 20073
PROCUREMENT SPECIFICATION MIL-B-6812	SUPERSEDES: AN73 THRU AN81		SHEET 1 OF 3

DD FORM 672-1 (COORDINATED)

PROJECT 5306-0813

USER ACTIVITIES: ARMY-ME

REVIEWER ACTIVITIES

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LENGTH DASH NO.	-03 GRIP ±.016	-03 LENGTH +.031 -.016	-03 K REF (MIN)	-04 GRIP ±.016	-04 LENGTH +.031 -.016	-04 K REF (MIN)	-05 GRIP ±.016	-05 LENGTH +.031 -.016	-05 K REF (MIN)	-06 GRIP ±.016	-06 LENGTH +.031 -.016	-06 K REF (MIN)	-07 GRIP ±.016	-07 LENGTH +.031 -.016	-07 K REF (MIN)
02	.062	.344	.250												
03	.062	.469	.375	.062	.469	.375									
04	.062	.594	.500	.062	.594	.500	.062	.609	.515						
05	.125	.656	.499	.125	.656	.499	.125	.672	.515	.062	.734	.640			
06	.250	.781	.499	.250	.781	.499	.250	.797	.515	.125	.797	.640	.062	.797	.703
07	.375	.906	.499	.375	.906	.499	.375	.922	.515	.250	.922	.640	.188	.922	.702
10	.500	1.031	.499	.500	1.031	.499	.500	1.047	.515	.375	1.047	.640	.312	1.047	.703
11	.625	1.156	.499	.625	1.156	.499	.625	1.172	.515	.500	1.172	.640	.438	1.172	.702
12	.750	1.281	.499	.750	1.281	.499	.750	1.297	.515	.625	1.297	.640	.562	1.297	.703
13	.875	1.406	.499	.875	1.406	.499	.875	1.422	.515	.750	1.422	.640	.688	1.422	.702
14	1.000	1.531	.499	1.000	1.531	.499	1.000	1.547	.515	.875	1.547	.640	.812	1.547	.703
15	1.125	1.656	.499	1.125	1.656	.499	1.125	1.672	.515	1.000	1.672	.640	.938	1.672	.702
16	1.250	1.781	.499	1.250	1.781	.499	1.250	1.797	.515	1.125	1.797	.640	1.062	1.797	.703
17	1.375	1.906	.499	1.375	1.906	.499	1.375	1.922	.515	1.250	1.922	.640	1.188	1.922	.702
20	1.500	2.031	.499	1.500	2.031	.499	1.500	2.047	.515	1.375	2.047	.640	1.312	2.047	.703
21	1.625	2.156	.499	1.625	2.156	.499	1.625	2.172	.515	1.500	2.172	.640	1.438	2.172	.702
22	1.750	2.281	.499	1.750	2.281	.499	1.750	2.297	.515	1.625	2.297	.640	1.562	2.297	.703
23	1.875	2.406	.499	1.875	2.406	.499	1.875	2.422	.515	1.750	2.422	.640	1.688	2.422	.702
24	2.000	2.531	.499	2.000	2.531	.499	2.000	2.547	.515	1.875	2.547	.640	1.812	2.547	.703
25	2.125	2.656	.499	2.125	2.656	.499	2.125	2.672	.515	2.000	2.672	.640	1.938	2.672	.702
26	2.250	2.781	.499	2.250	2.781	.499	2.250	2.797	.515	2.125	2.797	.640	2.062	2.797	.703
27	2.375	2.906	.499	2.375	2.906	.499	2.375	2.922	.515	2.250	2.922	.640	2.188	2.922	.702
30	2.500	3.031	.499	2.500	3.031	.499	2.500	3.049	.515	2.375	3.049	.640	2.312	3.049	.703
31	2.625	3.156	.499	2.625	3.156	.499	2.625	3.172	.515	2.500	3.172	.640	2.438	3.172	.702
32	2.750	3.281	.499	2.750	3.281	.499	2.750	3.297	.515	2.625	3.297	.640	2.562	3.297	.703
33	2.875	3.406	.499	2.875	3.406	.499	2.875	3.422	.515	2.750	3.422	.640	2.688	3.422	.702
34	3.000	3.531	.499	3.000	3.531	.499	3.000	3.547	.515	2.875	3.547	.640	2.812	3.547	.703
35	3.125	3.656	.499	3.125	3.656	.499	3.125	3.672	.515	3.000	3.672	.640	2.938	3.672	.702
36	3.250	3.781	.499	3.250	3.781	.499	3.250	3.797	.515	3.125	3.797	.640	3.062	3.797	.703
37	3.375	3.906	.499	3.375	3.906	.499	3.375	3.922	.515	3.250	3.922	.640	3.188	3.922	.702
40	3.500	4.031	.499	3.500	4.031	.499	3.500	4.047	.515	3.375	4.047	.640	3.312	4.047	.703
41	3.625	4.156	.499	3.625	4.156	.499	3.625	4.172	.515	3.500	4.172	.640	3.438	4.172	.702
42	3.750	4.281	.499	3.750	4.281	.499	3.750	4.297	.515	3.625	4.297	.640	3.562	4.297	.703
43	3.875	4.406	.499	3.875	4.406	.499	3.875	4.422	.515	3.750	4.422	.640	3.688	4.422	.702
44	4.000	4.531	.499	4.000	4.531	.499	4.000	4.547	.515	3.875	4.547	.640	3.812	4.547	.703
45	4.125	4.656	.499	4.125	4.656	.499	4.125	4.672	.515	4.000	4.672	.640	3.938	4.672	.702
46	4.250	4.781	.499	4.250	4.781	.499	4.250	4.797	.515	4.125	4.797	.640	4.062	4.797	.703
47	4.375	4.906	.499	4.375	4.906	.499	4.375	4.922	.515	4.250	4.922	.640	4.188	4.922	.702
50	4.500	5.031	.499	4.500	5.031	.499	4.500	5.047	.515	4.375	5.047	.640	4.312	5.047	.703
51	4.625	5.156	.499	4.625	5.156	.499	4.675	5.172	.515	4.500	5.172	.640	4.438	5.172	.702
52	4.750	5.281	.499	4.750	5.281	.499	4.750	5.297	.515	4.625	5.297	.640	4.562	5.297	.703
53	4.875	5.406	.499	4.875	5.406	.499	4.875	5.422	.515	4.750	5.422	.640	4.688	5.422	.702
54	5.000	5.531	.499	5.000	5.531	.499	5.000	5.547	.515	4.875	5.547	.640	4.812	5.547	.703
55	5.125	5.656	.499	5.125	5.656	.499	5.125	5.672	.515	5.000	5.672	.640	4.938	5.672	.702
56	5.250	5.781	.499	5.250	5.781	.499	5.250	5.797	.515	5.125	5.797	.640	5.062	5.797	.703
57	5.375	5.906	.499	5.375	5.906	.499	5.375	5.922	.515	5.250	5.922	.640	5.188	5.922	.702
60	5.500	6.031	.499	5.500	6.031	.499	5.500	6.047	.515	5.375	6.047	.640	5.312	6.047	.703

(B) HEAD DIMENSIONS ARE SUBJECT TO ABCA AND ASCC AIR STD 17/2. WHEN AMENDMENT, REVISION, OR CANCELLATION OF THIS DOCUMENT IS PROPOSED WHICH WILL MODIFY THE INTERNATIONAL AGREEMENT CONCERNED, THE PREPARING ACTIVITY TAKES APPROPRIATE ACTION THROUGH INTERNATIONAL STANDARDIZATION CHANNELS INCLUDING DEPARTMENTAL STANDARDIZATION OFFICES TO CHANGE THE AGREEMENT OR MAKE OTHER APPROPRIATE ACCOMMODATIONS.

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APPROVED 16 Sep 58 REVISED (B) FOR CHANGES SEE SHEETS 1, 2, & 3.

USER ACTIVITIES: ARMY-ME

REVIEWER ACTIVITIES:

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CUSTODIANS AF-82 NAVY-AS ARMY-AV AF-99	STANAG	MILITARY STANDARD	MS20073
		BOLT, MACHINE, AIRCRAFT, DRILLED HEAD, FINE THREAD	
PROCUREMENT SPECIFICATION MIL-B-6812		SUPERSEDES: AN73 THRU AN81	SHEET 2 OF 3

DD FORM 672-1 1 OCT 52

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LENGTH DASH NO.	-08			-09			-10			-12		
	GRIP ±.016	LENGTH +.031 -.016	K REF (MIN)	GRIP ±.016	LENGTH +.031 -.016	K REF (MIN)	GRIP ±.016	LENGTH +.031 -.016	K REF (MIN)	GRIP ±.016	LENGTH +.031 -.016	K REF (MIN)
10	.250	1.047	.765									
11	.375	1.172	.765									
12	.500	1.297	.765	.438	1.312	.842						
13	.625	1.422	.765	.562	1.438	.844						
14	.750	1.547	.765	.688	1.562	.842	.562	1.562	.968			
15	.875	1.672	.765	.812	1.688	.844	.688	1.688	.968			
16	1.000	1.797	.765	.938	1.812	.842	.812	1.812	.968	.750	1.812	1.030
17	1.125	1.922	.765	1.062	1.938	.844	.938	1.938	.968	.875	1.938	1.031
20	1.250	2.047	.765	1.188	2.062	.842	1.062	2.062	.968	1.000	2.062	1.030
21	1.375	2.172	.765	1.312	2.188	.844	1.188	2.188	.968	1.125	2.188	1.031
22	1.500	2.297	.765	1.438	2.312	.842	1.312	2.312	.968	1.250	2.312	1.030
23	1.625	2.422	.765	1.562	2.438	.844	1.438	2.438	.968	1.375	2.438	1.031
24	1.750	2.547	.765	1.688	2.562	.842	1.562	2.562	.968	1.500	2.562	1.030
25	1.875	2.672	.765	1.812	2.688	.844	1.688	2.688	.968	1.675	2.688	1.031
26	2.000	2.797	.765	1.938	2.812	.842	1.812	2.812	.968	1.750	2.812	1.030
27	2.125	2.922	.765	2.062	2.938	.844	1.938	2.938	.968	1.875	2.938	1.031
30	2.250	3.047	.765	2.188	3.062	.842	2.062	3.062	.968	2.000	3.062	1.030
31	2.375	3.172	.765	2.312	3.188	.844	2.188	3.188	.968	2.125	3.188	1.031
32	2.500	3.297	.765	2.438	3.312	.842	2.312	3.312	.968	2.250	3.312	1.030
33	2.625	3.422	.765	2.562	3.438	.844	2.438	3.438	.968	2.375	3.438	1.031
34	2.750	3.547	.765	2.688	3.562	.842	2.562	3.562	.968	2.500	3.562	1.030
35	2.875	3.672	.765	2.812	3.688	.844	2.688	3.688	.968	2.625	3.688	1.031
36	3.000	3.797	.765	2.938	3.812	.842	2.812	3.812	.968	2.750	3.812	1.030
37	3.125	3.922	.765	3.062	3.938	.844	2.938	3.938	.968	2.875	3.938	1.031
40	3.250	4.047	.765	3.188	4.062	.842	3.062	4.062	.968	3.000	4.062	1.030
41	3.375	4.172	.765	3.312	4.188	.844	3.188	4.188	.968	3.125	4.188	1.031
42	3.500	4.297	.765	3.438	4.312	.842	3.312	4.312	.968	3.250	4.312	1.030
43	3.675	4.422	.765	3.562	4.438	.844	3.438	4.438	.968	3.375	4.438	1.031
44	3.750	4.547	.765	3.688	4.562	.842	3.562	4.562	.968	3.500	4.562	1.030
45	3.875	4.672	.765	3.812	4.688	.844	3.688	4.688	.968	3.625	4.688	1.031
46	4.000	4.797	.765	3.938	4.812	.842	3.812	4.812	.968	3.750	4.812	1.030
47	4.125	4.922	.765	4.062	4.938	.844	3.938	4.938	.968	3.875	4.938	1.031
50	4.250	5.047	.765	4.188	5.062	.842	4.062	5.062	.968	4.000	5.062	1.030
51	4.375	5.172	.765	4.312	5.188	.844	4.188	5.188	.968	4.125	5.188	1.031
52	4.500	5.297	.765	4.438	5.312	.842	4.312	5.312	.968	4.250	5.312	1.030
53	4.625	5.422	.765	4.562	5.438	.844	4.438	5.438	.968	4.375	5.438	1.031
54	4.750	5.547	.765	4.688	5.562	.842	4.562	5.562	.968	4.500	5.562	1.030
55	4.875	5.672	.765	4.812	5.688	.844	4.688	5.688	.968	4.625	5.688	1.031
56	5.000	5.797	.765	4.938	5.812	.842	4.812	5.812	.968	4.750	5.812	1.030
57	5.125	5.922	.765	5.062	5.938	.844	4.938	5.938	.968	4.875	5.938	1.031
60	5.250	6.047	.765	5.188	6.016	.842	5.062	6.062	.968	5.000	6.062	1.030

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APPROVED 15 Sep 58 REVISED (B) FOR CHANGES SEE SHEETS 1, 2, & 3.

CUSTODIANS AF-82 NAVY-AS ARMY-AV AF-99	STANAG	MILITARY STANDARD BOLT, MACHINE, AIRCRAFT, DRILLED HEAD, FINE THREAD	MS20073
PROCUREMENT SPECIFICATION MIL-B-6812		SUPERSEDES: AN73 THRU AN81	SHEET 3 OF 3

DD FORM 672-1
1 OCT 52

PROJECT 5306-0813

USER ACTIVITIES: ARMY-ME
REVIEWER ACTIVITIES:
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