

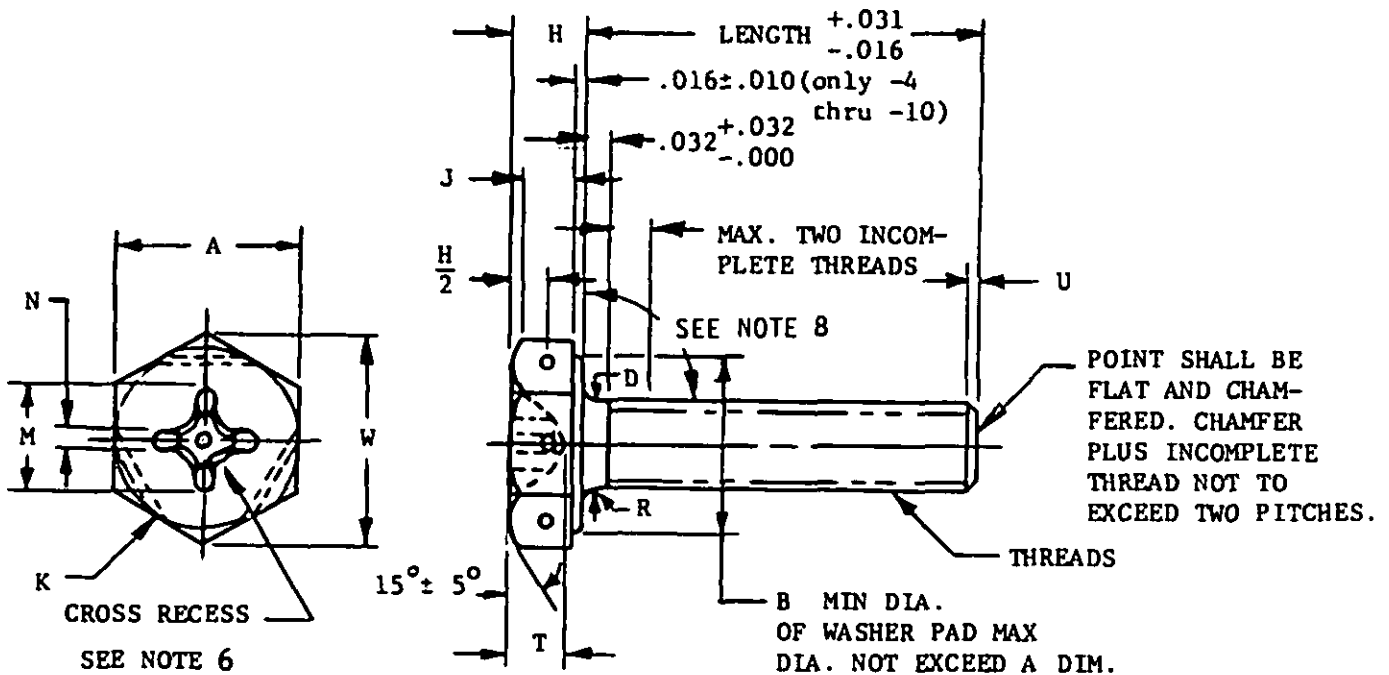
MIL-B-87114/4  
24 October 1983

## MILITARY SPECIFICATION SHEET

BOLT, HEX HEAD, CROSS RECESS, FULL THREAD,  
A-286 CRES, 160 Ksi Ftu

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for procuring the bolts as described herein shall consist of this document and the latest issue of specification MIL-B-87114.



FSC 5305

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TABLE I DIMENSIONS

DASH NO. (NOM. SIZE)	THREAD SIZE MIL-S-8879	A	W MIN	K DIA	N MIN	DRIVER SIZE	T 4/ MAX	B 1/ DIA	D DIA	H	J	K 2/ DIA +.010	R	U REF	TENSILE STRENGTH LBS MAX
-1 (No. 0)	.0600-80UNJC-3A	.157 .150	.171	.095 .082	.012	0	.056	-	.060 .056	.044 .036	-	-	.009 .004	.013	-
-2 (No. 1)	.0730-64UNJC-3A	.157 .150	.171	.095 .082	.012	1	.056	-	.073 .069	.044 .036	-	-	.011 .006	.016	-
-3 (No. 2)	.0860-56UNJC-3A	.157 .150	.171	.102 .089	.014	1	.063	-	.086 .082	.050 .040	-	-	.013 .008	.018	-
-4 (No. 4)	.1120-40UNJC-3A	.189 .181	.207	.116 .103	.018	1	.078	.156	.112 .094	.060 .049	.032	-	.015 .005	.031	-
-5 (No. 6)	.1380-32UNJC-3A	.220 .212	.242	.154 .141	.027	2	.086	.210	.138 .115	.093 .080	.050	-	.015 .005	.039	-
-6 (No. 8)	.1640-32UNJC-3A	.282 .274	.313	.169 .156	.028	2	.101	.210	.164 .141	.110 .096	.056	-	.015 .005	.039	-
-7 (No. 10)	.1900-32UNJF-3A	.314 .305	.348	.184 .171	.030	2	.116	.272	.190 .167	.120 .105	.062	.046	.020 .010	.039	3,600
-8 (1/4)	.2500-28UNJF-3A	.439 .429	.480	.247 .234	.033	3	.135	.335	.250 .224	.140 .125	.073	.046	.020 .010	.045	6,190
-9 (5/16)	.3125-24UNJF-3A	.502 .492	.552	.317 .304	.053	4	.168	.398	.312 .282	.171 .156	.102	.070	.020 .010	.052	9,820
-10 (3/8)	.3750-24UNJF-3A	.564 .554	.623	.342 .329	.056	4	.193	.460	.375 .345	.203 .188	.131	.070	.025 .015	.052	15,200

1/ CO-CENTRICITY: B DIAMETER TO THREAD PITCH DIAMETER WITHIN .005 TIR

3/ THREAD "LENGTH" FOR SCREENS LONGER THAN 2 INCHES SHALL BE 1.75 INCHES MINIMUM

2/ DRILL K DIA THREE HOLES WITHIN .010 OF CENTER OF HEX FLAT WHEN SPECIFIED BY NUMBER -7 THRU -10 ONLY

4/ GAGING OF THE CROSS RECESS SHALL BE IN ACCORDANCE WITH HS 9006.

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HEX. HEAD: The hexagon for threaded fasteners shall be in accordance with MS21132.

CROSS RECESS: The cross recess dimensions shall be in accordance with MS9006.

SCREW DRIVER: The recess screw driver shall be in accordance with GGG-S-121.

GENERAL REQUIREMENTS:

Material: CRES,A-286 in accordance with AMS5731 or AMS5737.

Heat Treatment: 160,000 PSI minimum tensile strength of material.

Surface Treatment: Passivate in accordance with QQ-P-35.

NOTES:

1. Dimensions in inches
2. Tolerances, unless otherwise specified, decimals  $\pm .010$ , angles  $\pm 1^\circ$ .
3. Lengths in .062 inch increments.
4. Bolts shall be free from burrs and slivers.
5. Surface texture in accordance with ANSI B46.1, head to shank fillet, thread root 32 microinches, bearing surface of head 63 microinches, all surfaces finish shall be 125 microinches unless otherwise specified.
6. Orientation of cross recess to hexagon is optional.
7. Magnetic permeability shall be less than 2.0 (AIR = 1.0) for a field strength  $H = 200$  oersteds using a magnetic permeability indicator in accordance with MIL-I-17214.
8. Bearing surface squareness: Within .003 FIM with shank.
9. Head marking shall be in accordance with procurement specification.
10. Cold working of head to shank fillet radius waived for sizes smaller than -7.

EXAMPLE OF PART NUMBER:

MB7114/4-1 - 4 = .250 long, undrilled head, .0600 - 80UNJC-3A Thread Size

Length dash no. (Length =  $.0625 \times$  Length dash no.)

'-' Denotes undrilled head

'D' Denotes drilled head

Dash no. (See Table I)

Basic part number

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ADMINISTRATIVE AND CONTRACTUAL PROVISIONS:

This document takes precedence over procurement documents.

Reference documents shall be of the issue in effect on date of invitation for bid.

CUSTODIANS:

Navy - AS  
Army - AV  
Air Force - 11

PREPARING ACTIVITY:

Navy - AS  
Project No. 5305 - 1502

REVIEW ACTIVITY:

DLA-IS  
Air Force - 99, 82