NAVISTAR, INC.

Material, Parts, and Process Specifications (MPAPS)	NUMBER: MPAPS S-B-7.201-GS/PL
	Former Designation: ESP-B-7.201-GS

TITLE: Type AA Hexagon Lock Bolts – English Series- Not Recommended (Noun Code 0810)	CURRENT REV No.: 1506	DATE: June 2015

WRITTEN/EDITED BY:	APPROVED BY:	SUPERSEDES:
Materials Engineering	Materials Engineering	ESP-B-7.201-GS - March 2002

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This specification may involve hazardous materials, equipment, and procedures. This specification does not purport to address all of the safety issues associated with its use. The user is responsible to consult appropriate safety and health practices and to determine the applicability of regulatory limits prior to use.

Change Notice: **Changed to New MPAPS format; Combined GS, NR.**

NOT RECOMMENDED FOR NEW DESIGN

1.0 GENERAL: The Type AA Hex Lock Bolts covered in this standard conform in most respects with the *Hexagon* Bolts on MPAPS S-B-1.101-GS/PL, except for the recess in the top of the head and the undercut on bearing face. They are intended for use in applications where greater elastic deflection of head is desirable. To achieve full effectiveness however, they must bear against a hard surface.

It should be noted that the word "Lock" appearing in the names of the products in this standard is a generic term historically associated with their identification and is not intended to imply an indefinite permanency of fixity in attachments where they are used.

2.0 RESTRICTED CHEMICAL SUBSTANCES: Effective January 1, 2007, all product supplied to the requirements of this specification must comply with the requirements of the MPAPS B-50 specification.

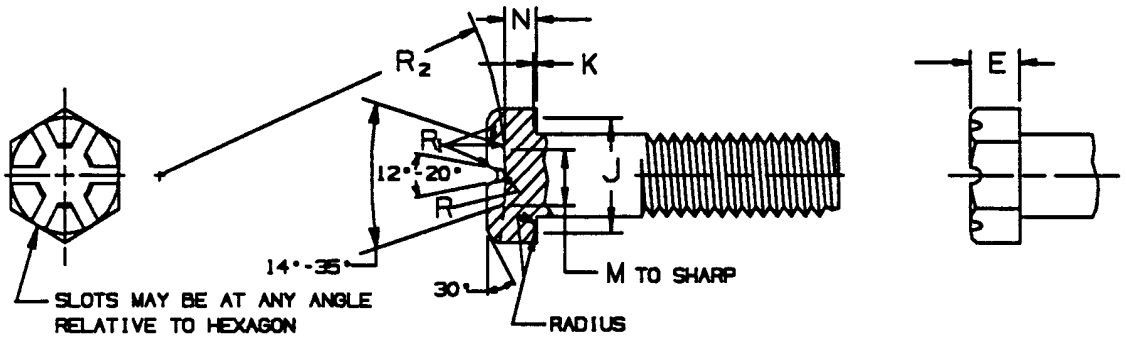
3.0 RECESS: To assure adequate strength and proper performance the slotted recess in the top of head and the undercut in the bearing surface shall be cold or hot forged.

For larger sizes, see following:

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Dimensions in inches:

	Nominal Size	1/4	5/16	3/8	7/16	1/2	9/16
E	Head Thickness, Nominal	.125	.188	.250	.281	.312	.375
	Head Thickness, Maximum	.135	.198	.260	.291	.327	.390
	Head Thickness, Minimum	.125	.188	.250	.281	.312	.375
J	Undercut Diameter, Minimum	.307	.386	.464	.526	.620	.683
	Undercut Diameter, Maximum	.317	.396	.474	.536	.630	.693
K	Undercut Depth, Minimum	.004	.010	.010	.010	.010	.010
	Undercut Depth, Maximum	.007	.013	.013	.013	.013	.013
M	Recess Diameter, Minimum	.146	.188	.230	.268	.312	.354
	Recess Diameter, Maximum	.166	.208	.250	.288	.332	.374
N	Checking Height, Maximum	.110	.145	.185	.205	.220	.260
	Checking Height, Minimum	.090	.125	.165	.185	.200	.240
R	Radius of Slot, Maximum	.024	.024	.031	.031	.031	.031
	Radius of Slot, Minimum	.016	.016	.016	.016	.016	.016
R_1	Radius, Maximum	.031	.031	.031	.031	.031	.031
	Radius, Minimum	.016	.016	.016	.016	.016	.016
R_2	Radius, Maximum	2.00	2.00	2.00	2.00	2.00	2.00
	Radius, Minimum	1.50	1.50	1.50	1.50	1.50	1.50

Dimensions in inches:

All dimensions except those listed below are the same as Hexagon Head Bolts on MPAPS S-B-1.101-GS/PL

	Nominal Size	5/8	3/4	7/8	1	1-1/8	1-1/4
E	Head Thickness, Nominal	.375	.438	.500	.562	.625	.687
	Head Thickness, Maximum	.390	.458	.520	.582	.635	.697
	Head Thickness, Minimum	.375	.438	.500	.562	.615	.677
J	Undercut Diameter, Minimum	.740	.865	.990	1.115	1.245	1.370
	Undercut Diameter, Maximum	.750	.875	1.000	1.125	1.255	1.380
K	Undercut Depth, Minimum	.010	.010	.010	.010	.010	.010
	Undercut Depth, Maximum	.013	.013	.013	.013	.013	.013
M	Recess Diameter, Minimum	.396	.480	.564	.646	.730	.814
	Recess Diameter, Maximum	.416	.500	.584	.666	.750	.834
N	Checking Height, Maximum	.290	.335	.390	.455	.525	.590
	Checking Height, Minimum	.270	.315	.370	.435	.505	.570
R	Radius of Slot, Maximum	.047	.047	.047	.062	.062	.078
	Radius of Slot, Minimum	.016	.016	.031	.031	.031	.031
R_1	Radius, Maximum	.031	.031	.062	.062	.062	.062
	Radius, Minimum	.016	.016	.031	.031	.031	.031
R_2	Radius, Maximum	3.50	3.88	4.62	6.88	12.50	19.88
	Radius, Minimum	3.00	3.38	4.12	6.38	12.00	19.38

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