

Coded Note Number: **M4430**

Revision Level: **C002**

Date: **June 27, 2017**

Title: **FASTENERS MARKING**

This revision history is provided for convenience and does not alleviate the supplier's responsibility with understanding and complying with the full coded note.

Change from Revision C001– Editorial change to reformat to current standard.

Bolded font indicates changed/added content.

[Text deleted] inserted in the document indicates the removal of content.

I. General Requirements:

- A. Self-locking nuts size #10 (0.190) shall be marked with the manufacturer's symbol/trademark/id. All fasteners 1/4" and larger must be marked with the manufacturer's symbol/ trademark/id and material grade/type designator as a minimum. The trademark shall be listed in MIL-HDBK-57 or registered with the Industrial Fasteners Institute. Trademark is subject to NNS approval.
- B. Marking shall not interfere with the usability of the fastener and shall be located so that when the fastener is properly installed the marking will be visible.
- C. Markings shall be applied to: the top surface of the head for hex head bolts/cap screws and socket head cap screws; the nut end of studs; one end only of bolt studs; the top surface of washer faced hex nuts and one face only of double chamfered hex nuts; one flat of the hex for self-locking nuts.
- D. Marking may be accomplished by the following methods:
 - (1) Embossing (raised characters).
 - (2) Impact die stamp with low-stress round bottom dies. (not to be used in high-stress area).
 - (3) Air or electric powered vibra-tool.

II. Material Identification Markings:

- A. MIL-B-857A-(5) steel fasteners 1/4" inch and larger shall be marked as specified in paragraphs 3.5.1 and 3.5.2, grade lines may be either radial or circumferential. Grade 2 does not require material grade marking.
- B. MIL-B-857A-(5) and FF-S-86D-(1) CRES and non ferrous fasteners 1/4 inch and larger shall be marked as follows:

IDENTIFICATION MARK			
MATERIAL	EXTERNALLY THREADED	INTERNALLY THREADED	
		HOT FORGED OR PUNCHED	MACHINED FROM BAR
CRES AISI 302	302	302	302
CRES AISI 303	B8F	8F	8FB
CRES AISI 303SE	B8F	8F	8FB
CRES AISI 304	B8	8	8B
CRES AISI 305	B8P	8P	8PB
CRES AISI 316	B8M	8M	8MB
CRES AISI 384	384	384	384
CRES AISI XM-7	XM-7	XM-7	XM-7
MNBRZ	675	675	675
NIALBRZ	632	632	632
PHBRZ	510	510	510
SIBRZ	651	651	651
NAVAL BRS	464	464	464
NICU	NICU or NC	NICU or NC	NICU or NC

- C. Nickel copper aluminum alloy male fasteners (to MS18116) and nuts 1/4" inch and larger shall be marked with the manufacturer's production lot number and ".K.".
- D. MIL-S-1222F-(4) alloy steel fasteners 1/2 inch and larger shall be marked with the manufacturer's production lot number and "LI".
- E. MIL-S-1222 G or H fasteners shall be produced and marked in accordance with the requirements of lot definition "A" (including lot number marking) whenever this purchase order requires test reports.
- F. FF-S-86D-(1) alloy steel socket head cap screws 1/4" inch and larger shall be marked "S150" when modified mechanical properties are invoked in the body of the purchase order.
- G. MIL-N-25027 self locking nuts 1/4" and larger shall be marked with the material grade listed in the applicable military standard (MS) or the applicable marking listed in paragraph II.B above.
- H. Fasteners manufactured to specifications not listed above shall be marked as required by the invoked specification. In the absence of marking requirements each fastener shall be marked with the appropriate AISI/SAE designation.

III. Packaging Requirements:

- A. Each purchase order item not installed in an assembly shall be packaged in individual boxes/cartons which shall be marked with applicable purchase order item number and (when provided) the Newport News part number.
- B. Shipping containers shall be marked with the purchase order and item number and (when provided) the Newport News part number of each box/carton packed within.
- C. When the purchase order requires test reports or the specification requires heat/lot traceability, each heat/lot shall be packaged in a separate box/carton with the heat/lot identification number marked thereon.