Fastener Industry Education Group Bulletin



Mismarked Grade 5 Bolts -

What occured? During 2008 *Tycoons Worldwide Group*, using the head mark *TY*, shipped into the USA numerous orders of bolts identified as SAE J429 Grade 5 that do not conform to Grade 5 chemical requirements.

What is the exact nonconformance? SAE J429 Grade 5 bolts must be manufactured using medium carbon steel having a minimum of 0.28% carbon. The subject bolts were produced using steel only having 0.15% to 0.25% carbon. The subject bolts meet the requirements of Grade 5.2 and not Grade 5 as they are marked.

What are the differences between Grade 5 and Grade 5.2 requirements?

Physical Requirements	Grade 5	Grade 5.2
Wedge Tensile Strength	120,000 PSI	120,000 PSI
Test Wedge Angle	10°	10°
Yield Strength	92,000 PSI	92,000 PSI
Proof Load	85,000 PSI	85,000 PSI
Hardness	HRC 25 - 34	HRC 26 – 36
Tempering Temp	800° F	800° F

Chemical Requirements	Grade 5	Grade 5.2
Carbon	0.28 - 0.55%	0.15 - 0.25%
Manganese	-	0.74% min.
Phosphorus	0.03% max.	0.03% max.
Sulfur	0.05% max.	0.05% max.
Boron	-	0.0005% min.
Grade Mark Requirements		\ \

Are there any performance issues to be concerned about? There have been no reported performance issues with the subject parts. Grade 5 and Grade 5.2 have the same performance requirements. All indications are that the subject parts meet all Grade 5.2 physical requirements.

Are there any potential legal problems associated with selling these bolts? US Customs has opened an investigation into the mismarked Grade 5 situation. Although no exact details are known at this time, US Customs could prosecute importers and resellers of misrepresented products under the following civil and criminal statutes:

- o 15 U.S.C. § 1125 (Lanham Act)
- o 19 C.F.R. § 141.11319 U.S.C. § 1592 (Customs Entry Penalty Statute)
- o 18 U.S.C. § 545 (Smuggling)
- o 18 U.S.C. § 1341 & 1343 (Mail & Wire Fraud)
- o 18 U.S.C. § 1001 (False Statements)
- o 28 U.S.C. § 287 (False Claims Act)

Some of the above referenced statutes apply only to the importation of mismarked product; others apply to selling or reselling these products. These statutes do not apply to users of the misrepresented products in question. All fastener distributors who imported the subject bolts directly are considered the "importer and manufacturer of record" by US Customs.

Does the FIEG have any suggestions for distributors who bought these products? Yes.

- 1. Immediately *quarantine* all of these bolts that remain in inventory.
- 2. Obtain legal counsel to determine:
 - a. Whether or not to sell any more of these bolts.
 - b. What action should be taken regarding notifying end users who have received these bolts.
- 3. **Contact the supplier** from whom the bolts were purchased to determine disposition of the remaining inventory.

Does the FIEG have any other suggestions for the fastener industry on how to avoid such problems in the future? Yes.

- Download a FREE copy of the FIEG white paper, "The Proper Designation and Use of Standards by End-Users and Suppliers Is Critical to Fastener Quality," from www.indfast.org or www.nfdafastener.org.
- 2. Develop or hire at least one staff person to learn the content of the most commonly used fastener standards and how fastener conformance is determined.
- **3.** Know your suppliers. Visit them personally to perform a quality system review or hire a consultant to do it for you.
- 4. Join one or more fastener trade associations to stay tuned into what is going on in the industry and to stay abreast of new and better ways of meeting current and future fastener industry challenges.

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About the FIEG:

The *Fastener Industry Education Group* (FIEG) was created as a joint effort of the Industrial Fasteners Institute (IFI), the National Fastener Distributor's Association (NFDA), the Western Association of Fastener Distributors (WAFD), and the Los Angeles Fastener Association (LAFA) to provide educational information to the USA fastener industry on matters regarding fastener standards, quality, and conformance.

For more information about these organizations go to; $\underline{www.indfast.org}$, $\underline{www.nfda-fastener.org}$, $\underline{www.wafd.org}$ and $\underline{www.lafa.net}$.