



## ERRATA 2

### AGMA 923-C22

### September 2024

The following editorial correction will be added to the next edition of AGMA 923-C22, *Metallurgical Specifications for Steel and Cast Iron Gearing* (published September 2022).

The changes, discovered after publication, have been reviewed and approved by the Chairperson of the AGMA Metallurgy and Materials Committee.

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**Error:** On page 18 of AGMA 923-C22, a test method procedure for hydrogen testing, which had been approved by the committee in an August 2021 meeting, is missing.

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**Correction:** Add the following test method procedure for hydrogen testing, between the “hardness” test method and the “intergranular oxides” test method:

**hydrogen testing:** Hydrogen testing per ASTM E1806 is utilized to minimize the risk of hydrogen assisted cracking that may occur as the result of steel making. Attaining a low hydrogen value lessens the possibility but does not guarantee freedom from hydrogen caused damage. Hydrogen is measured in molten steel with a real-time partial pressure probe or a quartz pin sample analyzed by thermal conductivity. Partial pressure measurements may be taken in the ladle or tundish. Quartz pin samples are taken from the mold, suitably quenched, and stored to prevent hydrogen diffusion before analysis. A hydrogen value, measured by either the partial pressure or quartz pin method, is reported. Hydrogen values obtained from each of these methods are not necessarily equivalent, as a quartz pin sample from the mold will reflect hydrogen absorbed during the teeming process. Sampling from solid wrought product does not accurately reflect the amount of soluble hydrogen in the steel, therefore it is not recommended nor used for product acceptance/rejection. The use of VAR material precludes the need for hydrogen testing.

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This addition will be included in the next revision of AGMA 923.