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2014-07-15

Gears — Surface temper etch inspection after grinding, chemical method

*Engrenages — Contrôle par attaque chimique des zones surchauffées
lors de la rectification*



Reference number
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 60, *Gears*, Subcommittee SC 2, *Gear capacity calculation*.

This second edition cancels and replaces the first edition (ISO 14104:1995), of which it constitutes a technical revision with the following changes:

- use of a grey scale card to qualify varying degrees of surface temper damage;
- inclusion of sample photographs which are intended to provide the user of this International Standard with indications of typical surface temper damage.

This corrected version of ISO 14104:2014 incorporates the following corrections: additional recommendations in [2.5](#) and [3.5](#); editorial corrections to [Tables 2](#) and [3](#); modification of the recommendation on abrasive pads and addition of a related warning in [Clause 9](#).

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Introduction

This International Standard explains the materials and procedures necessary to determine, evaluate, and describe localized overheating on ground surfaces. A system to describe and classify the indications produced during this inspection is included. However, specific acceptance or rejection criteria are not contained.

An industry-wide survey was conducted to establish common solutions in time that were acceptable to the greatest number of users. The safety and environmental precautions were included therein for those not familiar with storage, handling, use, and disposal of concentrated acids, alkalis, and solvents. These precautions, however, do not supersede the latest applicable requirements.