

Gears — FZG test procedures —

**Part 1: FZG test method A/8, 3/90 for
relative scuffing load-carrying capacity
of oils**

ICS 21.200

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Summary of pages

This document comprises a front cover, an inside front cover, the ISO title page, pages ii to v, a blank page, pages 1 to 17 and a back cover.

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Gears — FZG test procedures —

Part 1:

**FZG test method A/8,3/90 for relative
scuffing load-carrying capacity of oils**

Engrenages — Méthodes d'essai FZG —

*Partie 1: Méthode FZG A/8,3/90 pour évaluer la capacité de charge au
grippage des huiles*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 14635 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 14635-1 was prepared by Technical Committee ISO/TC 60, *Gears*, Subcommittee SC 2, *Gear capacity calculation*.

ISO 14635 consists of the following parts, under the general title *Gears — FZG test procedures*:

- *Part 1: FZG test method A/8,3/90 for relative scuffing load-carrying capacity of oils*
- *Part 2: FZG test method A10/16,6R/90 for relative scuffing load-carrying capacity of lubricants with high EP performance¹⁾*

Annexes A and B of this part of ISO 14635 are for information only.

1) Currently a new work item proposal awaiting approval.

Introduction

The types of gear failures which may be influenced by the lubricant in use are scuffing, low-speed wear and the gear-surface fatigue phenomena known as micropitting and pitting. In the gear design process, these gear damages are taken into consideration by the use of specific lubricant and service-related characteristic values. For an accurate, field-related selection of these values, adequate lubricant test procedures are required. The FZG test procedures described in this and other parts of ISO 14635 can be regarded as tools for the determination of the lubricant-related characteristic values to be introduced into the load-carrying capacity calculation of gears.

FZG test method A/8,3/90 for the relative scuffing load-carrying capacity of oils described in this part of ISO 14635 is typical for the majority of applications in industrial and marine gears. ISO 14635-2 will be related to the relative scuffing load-carrying capacity of oils of very high EP properties, as used for the lubrication of automotive driveline components. Other FZG test procedures for the determination of low-speed wear, micropitting and pitting load-carrying capacity of gears are already in a late state of development. They may be added later to ISO 14635 as further parts.

