

TECHNICAL REPORT

IEC TR 62112

First edition
2001-10

Safety of hand-held motor-operated electric tools – Particular requirements for drills – Test procedure concerning dynamic forces at sudden stalling

*Sécurité des outils électroportatifs à moteur –
Règles particulières pour les perceuses –
Procédure d'essai des forces dynamiques
lors d'un calage soudain*

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SAFETY OF HAND-HELD MOTOR-OPERATED ELECTRIC TOOLS –
PARTICULAR REQUIREMENTS FOR DRILLS –
TEST PROCEDURE CONCERNING DYNAMIC FORCES
AT SUDDEN STALLING**

FOREWORD

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IEC 62112, which is a technical report, has been prepared by subcommittee 61F: Safety of hand-held motor-operated electric tools, of IEC technical committee 61: Safety of household and similar electrical appliances.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
61F/282/CDV	61F/342/RVC

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

This document, which is purely informative, is not to be regarded as an International Standard.

The committee has decided that the contents of this publication will remain unchanged until 2004. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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INTRODUCTION

In IEC 60745-2-1, *Safety of hand-held motor-operated electric tools – Part 2: Particular requirements for drills*, the allowed degree of static stalling torque of a clutch at the locked driven spindle is given in clause 18.101 for different shaped tools. Because of a lack of knowledge about dynamic behaviour at sudden stalling, it was not possible there to define any limits or a test procedure.

A working group was therefore instituted to determine requirements and test specifications concerning dynamic forces in clutches, and a round-robin-test was initiated.

The work proceeded in three steps:

1. design of a test rig and installation of measuring devices: the influence of an operator on the torque at the handles was evaluated;
2. measurement of maximum torque that can be held at the handles at sudden stalling;
3. design of a loading device that simulates the hand-arm-system and of a test rig.

This technical report defines test procedures and limits for dynamic forces interfering in a sudden stalling. It presents a type-test concerning normal and correct use. It does not exclude the possibility that incorrect operation may lead to injuries when clutches are designed according to this proposal.

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