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## **Pliers and nippers — Methods of test**

*Pinces et tenailles — Méthodes d'essai*



Reference number  
ISO 5744:2004(E)

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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 2.

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 5744 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 10, *Assembly tools for screws and nuts, pliers and nippers*.

This third edition cancels and replaces the second edition (ISO 5744:1988) which has been technically revised.

# Pliers and nippers — Methods of test

## 1 Scope

This International Standard specifies methods of test for checking the correct functioning of pliers and nippers.

The test parameters have been specified on the basis of the functional uses of the tools.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12166:1988, *Copper and copper alloys — Wire for general purposes*

IEC 60317-0-1, *Specifications for particular types of winding wires — Part 0-1: General requirements — Enamelled round copper wire*

## 3 General

Unless otherwise specified, values like dimensions used for positioning a test piece, test forces and locations for applying test forces have a tolerance of  $\pm 2,5$  %.

## 4 Load test

### 4.1 General

The test shall be carried out using suitable equipment which can be checked by comparison with a standard.

All tests shall be executed on the same tested tool and in the sequence of tests specified in this International Standard.

### 4.2 Pliers and nippers

For the type and size of tool, given in the dimensional standards, define a point for the application of the load on the handles at distance  $l_1$  from the centre of the joint rivet, and insert a suitable test piece into the jaws (see 4.4).

If a pair of pliers is fitted with a comfort grip, the test shall preferably be carried out with the comfort grip removed.

Apply a load of 50 N and measure the width,  $w_1$ , of the handles. Increase the load to the specified value,  $F$ , as given in the tables of the applicable product standard, and then reduce it to 50 N. The load  $F$  shall be applied four times and then the width,  $w_2$  of the handles shall again be measured at the same distance  $l_1$ .