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**Hydraulic fluid power — Cylinders —  
Acceptance tests**

*Transmissions hydrauliques — Vérins — Essais de réception*



Reference number  
ISO 10100:2001(E)

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Fax + 41 22 749 09 47  
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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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 10100 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 3, *Cylinders*.

This second edition cancels and replaces the first edition (ISO 10100:1990), which has been technically revised.

## Introduction

In hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure circulating within an enclosed circuit.

One component of such a system is the hydraulic fluid power cylinder. This is a device that converts fluid power into linear mechanical force and motion. It consists of a movable element, i.e. a piston and piston rod, operating within a cylindrical bore.

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# Hydraulic fluid power — Cylinders — Acceptance tests

## 1 Scope

This International Standard specifies acceptance and function tests for hydraulic fluid power cylinders.

## 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 4406:1999, *Hydraulic fluid power — Fluids — Method for coding the level of contamination by solid particles*.

ISO 5598:1985, *Fluid power systems and components — Vocabulary*.

ISO 6743-4:1999, *Lubricants, industrial oils and related products (class L) — Classification — Part 4: Family H (Hydraulic systems)*.

ISO 7745:1989, *Hydraulic fluid power — Fire-resistant (FR) fluids — Guidelines for use*.

## 3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 5598 apply.

## 4 Identity check

Record the following information about the cylinder to be tested:

- a) type;
- b) port size, type and orientation;
- c) if the cylinder contains cushions, verification of proper location and orientation of throttle screw(s);
- d) stroke length;
- e) model label;
- f) bore;
- g) rod diameter;
- h) piston rod extension and configuration;
- i) mounting type or style and, where applicable, position of the variable mounting surface.