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Hydraulic fluid power — Test methods for hoses and hose assemblies

*Transmissions hydrauliques — Méthodes d'essai pour les tuyaux et
flexibles*



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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).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 4, *Connectors and similar products and components*.

This third edition cancels and replaces the second edition (ISO 6605:2002), which has been technically revised with the following changes:

- a WARNING was added before the Scope;
- added ISO/TR 11340 and ISO/TS 17165-2 and removed ISO 6945 from the normative references;
- added new ISO verbiage to the terms and definitions;
- added definitions for “change in length”, “minimum burst pressure” and “cyclic endurance (impulse) test”;
- replaced “operating pressure” with “maximum working pressure” throughout the document;
- added the statements: “The proof pressure shall be twice the maximum working pressure, unless otherwise specified” and “The minimum burst pressure shall be four times the maximum working pressure, unless otherwise specified in the pertinent hose product standard”;
- replaced ISO 4672:1997 with ISO 10619-2:2011;
- added: “For values of d less than 25 mm, use $d = 25$ mm for the $2d$ term in the expression for the hose free length, so that the hose between the end of the hose fitting and the start of the bend radius is straight” and “The actual free hose length shall agree with the calculated free hose length to within $+1/-0$ % or $+8/-0$ mm, whichever is greater” to [5.6.2.2](#);
- redefined the frequency in [5.6.2.5](#), added a new [5.6.2.6](#) and [5.6.2.9](#), revised [Figure 2](#) and added [Figure 3](#);
- deleted the abrasion test;

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— updated all the references in the Bibliography.

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Introduction

In hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure within an enclosed circuit. A hose assembly is a flexible fluid power conductor consisting of a length of hose attached, at both ends, to hose fittings.