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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

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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).

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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;

— updated all the references in the Bibliography.

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.