PD ISO/TS 17165-2:2013

BSI Standards Publication

Hydraulic fluid power — Hose assemblies

Part 2: Practices for hydraulic hose assemblies

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National foreword

This Published Document is the UK implementation of ISO/TS 17165-2:2013. It supersedes PD ISO/TR 17165-2:2006 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee MCE/18, Fluid power systems and components, to Panel MCE/18/-/4, Connectors and associated components.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Published by BSI Standards Limited 2013

ISBN 978 0 580 73780 0

ICS 23.040.70

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 30 April 2013.

Amendments issued since publication

Date	Text affected

PD ISO/TS 17165-2:2013

TECHNICAL SPECIFICATION

ISO/TS 17165-2

First edition
2013-04-01

Hydraulic fluid power — Hose assemblies —

Part 2: Practices for hydraulic hose assemblies

Transmissions hydrauliques — Flexibles de raccordement —

Partie 2: Pratiques pour les flexibles de raccordement hydrauliques

Reference number
ISO/TS 17165-2:2013(E)

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Published in Switzerland

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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. www.iso.org/directives

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

This first edition of ISO/TS 17165-2 cancels and replaces ISO/TR 17165-2:2006, which has been technically revised.

ISO 17165 consists of the following parts, under the general title *Hydraulic fluid power – Hose assemblies*:

— *Part 1: Dimensions and requirements*

— *Part 2: Practices for hydraulic hose assemblies*

Introduction

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

To allow fluid flow between components, they are interconnected by piping, both rigid (tubes and tube connectors) and flexible (hose assemblies, which consist of hose and hose fittings).

Hydraulic fluid power — Hose assemblies —

Part 2:
Practices for hydraulic hose assemblies

1 Scope

This part of ISO 17165 provides guidelines for selection, routing, fabrication, installation, replacement, maintenance and storage of hose and hose assemblies for hydraulic fluid power systems which are manufactured from hoses conforming to ISO 1436, ISO 3862, ISO 3949, ISO 4079 and ISO 11237, and hose fittings conforming to ISO 12151-1 to ISO 12151–6.

NOTE 1 Many of these practices also can be suitable for use with other types of hoses and systems.

NOTE 2 Annex A lists examples of actual failure resulting from improper use of hydraulic hose and hose assemblies.

2 Normative references

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

ISO 1436, *Rubber hoses and hose assemblies — Wire-braid-reinforced hydraulic types for oil-based or water-based fluids — Specification*

ISO 2230, *Rubber products — Guidelines for storage*

ISO 3457, *Earth-moving machinery — Guards — Definitions and requirements*

ISO 3862, *Rubber hoses and hose assemblies — Rubber-covered spiral-wire-reinforced hydraulic types for oil-based or water-based fluids — Specification*

ISO 3949, *Plastics hoses and hose assemblies — Textile-reinforced types for hydraulic applications — Specification*

ISO 4079, *Rubber hoses and hose assemblies — Textile-reinforced hydraulic types for oil-based or water-based fluids — Specification*

ISO 5598, *Fluid power systems and components — Vocabulary*

ISO 8330, *Rubber and plastics hoses and hose assemblies — Vocabulary*

ISO 8331, *Rubber and plastics hoses and hose assemblies — Guidelines for selection, storage, use and maintenance*

ISO 11237, *Rubber hoses and hose assemblies — Compact wire-braid-reinforced hydraulic types for oil-based or water-based fluids — Specification*

ISO 12151-1, *Connections for hydraulic fluid power and general use — Hose fittings — Part 1: Hose fittings with ISO 8434-3 O-ring face seal ends*

ISO 12151-2, *Connections for hydraulic fluid power and general use — Hose fittings — Part 2: Hose fittings with ISO 8434-1 and ISO 8434-4 24 degree cone connector ends with O-rings*

ISO 12151-3, *Connections for hydraulic fluid power and general use — Hose fittings — Part 3: Hose fittings with ISO 6162-1 or ISO 6162-2 flange ends*

