



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 14041.4-2019

**Hydraulic fluid power -- Filter elements -- Part 4: Method for
rated end load test**

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Table of Contents

Foreword...	3
Introduction...	6
1 Scope...	7
2 Normative References...	7
3 Terms and Definitions...	7
4 Inspection Apparatus...	8
5 Test Procedures...	8
6 Acceptance Criteria...	8
7 Annotation Instruction (when quoting this Part of GB/T 14041)...	8

Foreword

GB/T 14041 Hydraulic Fluid Power - Filter Elements can be divided into the following four parts:

- Part 1: Verification of Fabrication Integrity and Determination of the First Bubble Point;
- Part 2: Verification of Material Compatibility with Fluids;
- Part 3: Verification of Collapse/Burst Pressure Rating
- Part 4: Method for Rated End Load Test

This Part is Part 4 of GB/T 14041.

This Part was drafted as per the rules specified in GB/T 1.1-2009.

This Part replaced GB/T 14041.4-1993 Fluid Power - Filter Elements - Method for End Load Test. Compared with GB/T 14041.1993, the major technical changes of this Part are as follows:

- Add a description of the scope of application of the standard (see Clause 1 of this Edition);
- Revise the Clause 2 "Normative References", and the specific content is as follows:

? Delete the reference to GB/T14041.1 Hydraulic Filter Element - Part 1:

Verification of Fabrication Integrity and Determination of the First Bubble

Point (see Clause 2 of 1993 Edition);

? Add the reference to GB/T17446 Fluid Power Systems and Components -

Vocabulary (see Clause 2 of this Edition);

--- Add the definition of end load (see 3.1 of this Edition);

--- Add the "NOTE" of "rated end load" (see 3.2 of this Edition);

--- Delete the description of test according to GB/T14041.1 (see 5.1 of 1993 Edition);

--- Modify the description of the test method according to GB/T14041.2 (see 5.1, 5.2, of this Edition; and 5.2, 5.3 of 1993 Edition);

--- Add the description of test according to GB/T14041.3 (see 5.3 of this Edition);

--- Add the annotation instructions when citing this Part (see Clause 7 of this Edition).

Hydraulic Fluid Power - Filter Elements

- Part 4: Method for Rated End load Test

1 Scope

This Part of GB/T 14041 specifies the method for testing the rated end load of the hydraulic filter element.

This Part is applicable to filter elements used in hydraulic transmission systems, and can also be used as a reference for lubricating oil and fuel filter elements with the same structure.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this document.

GB/T 14041.2 Hydraulic Fluid Power - Filter Elements - Part 2: Verification of Material Compatibility with Fluids (GB/T 14041.2-2007, ISO 2943:1998, IDT)

GB/T 14041.3 Hydraulic Fluid Power - Filter Elements - Part 3: Verification of

Collapse/Burst Pressure Rating (GB/T 14041.3-2010, ISO 2941:2009, IDT)

GB/T 17446 Fluid Power Systems and Components - Vocabulary (GB/T 17446-2012, ISO 5598:2008, IDT)

3 Terms and Definitions

For the purposes of this Document, the terms and definitions given in GB/T 17446 and the following apply.

3.1 End load

The axial force acting on the end of the filter element may cause permanent deformation of the filter element or damage to the seal.

3.2 Rated end load

The maximum axial force that is allowed to act on the end of the filter element without

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