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**INTERNATIONAL STANDARD**



**3723**

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## **Hydraulic fluid power — Filter elements — Method for end load test**

*Transmissions hydrauliques — Éléments filtrants — Méthode de détermination de la résistance à la déformation axiale*

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**Descriptors** : hydraulic fluid power, filters, fluid filters, mechanical tests, determination, mechanical strength, strain deformation, axial stress.

## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3723 was drawn up by Technical Committee ISO/TC 131, *Fluid power systems and components*, and was circulated to the Member Bodies in March 1975.

It has been approved by the Member Bodies of the following countries :

Australia	India	Sweden
Austria	Italy	Switzerland
Belgium	Japan	Turkey
Brazil	Mexico	United Kingdom
Czechoslovakia	Netherlands	U.S.A.
Finland	Poland	U.S.S.R.
France	Romania	Yugoslavia
Germany	South Africa, Rep. of	
Hungary	Spain	

No Member Body expressed disapproval of the document.

# Hydraulic fluid power — Filter elements — Method for end load test

## 0 INTRODUCTION

In hydraulic fluid power systems, power is transmitted and controlled through a fluid under pressure within an enclosed circuit. Filters maintain fluid cleanliness by removing insoluble contaminants.

The filter element is the porous device which performs the actual process of filtration.

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method for verifying the end load rating for a hydraulic fluid power filter element.

It also verifies the ability of a hydraulic fluid power filter element to withstand the designated axial loading imposed by installation and use.

## 2 REFERENCES

ISO 2941, *Hydraulic fluid power — Filter elements — Verification of collapse/burst resistance*.

ISO 2943, *Hydraulic fluid power — Filter elements — Verification of material compatibility with fluids*.

ISO 5598, *Fluid power — Vocabulary*.<sup>1)</sup>

## 3 DEFINITIONS

**3.1 end load** : The axial force applied to the end of a filter element which may cause permanent deformation or seal failure.

**3.2 rated end load** : The maximum specified axial force which can be applied to a filter element without permanent deformation or seal failure.

**3.3** For definitions of other terms used, see ISO 5598.

## 4 TEST EQUIPMENT

Suitable **weights** or **mounting fixtures** for applying the designated axial loads to simulate the installation and mounting requirements of the particular filter element undergoing evaluation.

## 5 TEST PROCEDURE

**5.1** Subject the filter element to the fabrication integrity and hot soak portions of sub-clause 5.3 of ISO 2943.

**5.2** After the 72 h hot soak (see 5.1), cool the filter element to room temperature and subject it to the axial load designated by the filter manufacturer for 5 min.

## 6 CRITERIA FOR ACCEPTANCE

**6.1** There shall be no visual evidence of structural, seal or filter medium failure.

**6.2** The filter element shall successfully complete the collapse/burst test in accordance with ISO 2941.

**7 IDENTIFICATION STATEMENT** (Reference to this International Standard)

Use the following statement in test reports, catalogues and sales literature when electing to comply with this International Standard :

“Method of verifying filter element end load rating conforms to ISO 3723, *Hydraulic fluid power — Filter elements — Method for end load test*.”

1) In preparation.