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Hydraulic fluid power — Filter elements — Verification of fabrication integrity and determination of the first bubble point

Transmissions hydrauliques — Éléments filtrants — Vérification de la conformité de fabrication et détermination du point de première bulle

Reference number
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Foreword

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ISO 2942 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 6, *Contamination control*.

This fourth edition cancels and replaces the third edition (ISO 2942:1994) which has been technically revised.

Introduction

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

The ability of a filter to achieve and maintain the required level of performance depends, among other parameters, upon its filtration rating and structural integrity. Any imperfections in the structure, either through poor manufacturing techniques or lack of strength, will allow bypassing of unfiltered fluid.

The integrity of the element after manufacture can be evaluated using a non-destructive filter integrity test. This test determines whether flaws are present which would allow the fluid to bypass the filtering process and provides for quality control. The test is also used to evaluate whether damage has been sustained by the element during both service and laboratory tests.

The first bubble point test is used for investigative product development and/or production process evaluation. The acceptability of filtration performance cannot be determined by the first bubble point test.