INTERNATIONAL STANDARD

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Methods of test for full-flow lubricating oil filters for internal combustion engines —

Part 5: Test for cold start simulation and hydraulic pulse durability

Méthodes d'essai des filtres à huile de lubrification à passage intégral pour moteurs à combustion interne —

Partie 5: Essai pour simulation de démarrage à froid et de résistance aux impulsions hydrauliques

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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 70, *Internal combustion engines*, Subcommittee SC 7, *Tests for lubricating oil filters*.

This second edition cancels and replaces the first edition (ISO 4548-5:1990), of which it constitutes a minor revision.

ISO 4548 consists of the following parts, under the general title *Methods of test for full-flow lubricating oil filters for internal combustion engines*:

— *Part 1: Differential pressure/flow characteristics*

— *Part 2: Element by-pass valve characteristics*

— *Part 3: Resistance to high differential pressure and to elevated temperature*

— *Part 4: Initial particle retention efficiency, life and cumulative efficiency (gravimetric method)*

— *Part 5: Test for cold start simulation and hydraulic pulse durability*

— *Part 6: Static burst pressure test*

— *Part 7: Vibration fatigue test*

— *Part 9: Inlet and outlet anti-drain valve tests*

— *Part 12: Filtration efficiency using particle counting, and contamination retention capacity*

The following parts are under preparation:

— *Part 13: Static burst pressure test for composite filter housings*

— *Part 14: Cold start simulation and hydraulic pulse durability for composite filter housings*

— *Part 15: Vibration fatigue test for composite filter housings*

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Introduction

ISO 4548 (all parts) establishes standard test procedures for measuring the performance of full-flow lubricating oil filters for internal combustion engines. The series has been prepared in separate parts, each part relating to a particular performance characteristic.

Together the tests provide the information necessary to assess the characteristics of a filter, but if agreed between the purchaser and the manufacturer, the tests can be conducted separately.

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