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

GB/T 8243.15-2018

**Methods of test for full-flow lubricating oil filters for internal
combustion engines -- Part 15: Vibration fatigue test for
composite filter housings**

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Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions and graphic symbols

3.1 Terms and definitions

3.2 graphic symbols

4 test work characteristics

5 test bench

Foreword

GB/T 8243 "full-flow engine oil filter test method" now includes the following sections.

- Part 1. Differential pressure - flow characteristics;
- Part 2. filter bypass valve characteristics;
- Part 3. high pressure differential and high temperature characteristics;
- Part 4. The original filtration efficiency, life expectancy and cumulative efficiency (gravimetric method);
- Part 5. cold start simulation and hydraulic pulse durability test;
- Part 6. Static pressure bursting test;
- Part 7. Vibration fatigue test;
- Part 9. Import and export check valve test;
- Part 10. oil-bearing water life and cumulative efficiency;
- Part 11. Self-cleaning filter;
- Part 12. Particle counting method to determine the filtration efficiency and capacity ash;
- Part 13. Composite material filter static pressure bursting test;
- Part 14. composite filter cold start simulation and hydraulic pulse durability test;
- Part 15. Vibration fatigue test of composite filter.

This section GB/T 8243 Part 15.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the translation method is equivalent to using ISO 4548-15..2014
"Full-flow engine oil filter test methods - Part 15.

Vibration fatigue test of composite filter ".

Our national documents that have a consistent correspondence with the normative references in this section are as follows.

--- GB/T 786.1-2009 Fluid power systems and components Graphical symbols and circuit diagrams - Part 1. For general use and number

According to the processing of graphic symbols (ISO 1219-1..2006, IDT)

--- GB/T 8243.1-2003 Internal combustion engine full flow oil filter test methods - Part 1.
Differential pressure - flow characteristics

(ISO 4548-1..1997, IDT)

This part is proposed by China Machinery Industry Federation.

This part of the National Internal Combustion Engine Standardization Technical Committee (SAC/TC177) centralized.

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Full - flow engine oil filter test method

Part 15. vibration test of composite filter

1 Scope

GB/T 8243 provisions of this part of the determination of full-flow oil filter anti-engine structural vibration test method. this

Test method for the maximum flow does not exceed 100L/min spin-on filter and removable filter with a disposable filter.

If the manufacturer and the customer agree, this test method can be used for higher flow

filter.

This test method is applicable to test pieces that change the mechanical properties of the product material with temperature during service. This test method

It is also suitable for filters manufactured by other temperature-sensitive materials that the filter manufacturer and the customer agree as agreed.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

ISO 1219-1 Hydraulic transmission systems and components - Symbols and circuit diagrams - Part 1. General purpose and data processing

Graphical symbols

(Fluidpowersystemsandcomponents-Graphicalsymbolsandcircuitdiagrams- Part 1.

Graphical symbols for conventional use and data-processing applications)

ISO 4548-1 Internal combustion engine full flow oil filter test methods - Part 1. Differential pressure - flow characteristics (Methodsoftestfor

ful-flowlubricatingoilfiltersforinternalcombustionengines-Part 1. Differentialpressure/flow characteristics

3.1 Terms and definitions

ISO 4548-1 defines the terms and definitions apply to this document.

3.2 graphic symbols

This part of the graphic symbols used in accordance with ISO 1219-1 [1] requirements.

4 test work characteristics

Complete installation of the oil filter assembly subjected to alternating forces caused by vibrations of the engine or mounting device, including filter housing, adapter, and safety

Mounting bracket. This test method is used to verify the ability of the filter assembly to withstand the vibration of a predetermined number of cycles when pressurized.

5 test bench

The test rig shall include the following components, as well as the necessary piping, fittings and brackets (see Figure 1).

- a) Electromechanical shakers, including the necessary hardware and electronic equipment for controlling and monitoring displacement, speed and acceleration;

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