TECHNICAL SPECIFICATION

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Road vehicles — Aerosol separator performance test for internal combustion engines —

Part 3: Method to perform engine gravimetric test

Véhicules routiers — Essai de performance du séparateur d'aérosols pour les moteurs à combustion interne —

Partie 3: Méthode pour effectuer un essai gravimétrique du moteur

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Foreword

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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 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword — Supplementary information.

The committee responsible for this document is ISO/TC 22, *Road vehicles*, Subcommittee SC 5, *Engine tests*.

ISO 17536 consists of the following parts, under the general title *Road Vehicles — Aerosol separator performance test for internal combustion engines*:

— *Part 1: General*

— *Part 3: Method to perform engine gravimetric test* [Technical Specification]

The following parts are under preparation:

— *Part 2: Laboratory gravimetric test method*

— *Part 4: Laboratory fractional test method*

— *Part 5: Engine fractional efficiency test method*

Introduction

Engine crankcase blowby is composed of combustion exhaust gases which have escaped to the crankcase through piston ring seals and lube oil aerosols generated by thermal and mechanical action within the engine. These gases are vented from the crankcase to prevent a build-up of high pressure. The constituents of vented engine blowby gases are recognized as an undesirable contaminant and technology for their containment is, therefore, evolving.

The device used to separate oil aerosols from the blowby typically releases cleaned gases to atmosphere, or alternatively returns the cleaned product to the combustion process by feeding into the air inlet, prior to the turbo compressor. The latter has led to the requirement for a pressure control device to isolate the engine from turbo inlet suction.

It is the purpose of this part of ISO 17536 to define standardized and repeatable test procedures for the evaluation of blowby oil aerosol separators and filtering devices using this engine gravimetric test method. This part of ISO 17536 is only a general guideline for performing an engine test.