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**Motorcycles — Measurement methods  
for gaseous exhaust emissions during  
inspection or maintenance**

*Motocycles — Méthode de mesure des émissions gazeuses au cours  
des inspections ou de la maintenance*



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# Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Instrumentation</b> .....	<b>1</b>
<b>5 Check, maintenance periodicity and precautions for use of instruments</b> .....	<b>2</b>
5.1 Check before use.....	2
5.2 Maintenance periodicity.....	2
5.3 Precautions for use.....	2
<b>6 General motorcycle verification</b> .....	<b>2</b>
<b>7 Normal conditioning of motorcycle</b> .....	<b>3</b>
7.1 Warming up.....	3
7.2 Test conditions.....	3
<b>8 Gaseous exhaust emissions and corrections</b> .....	<b>3</b>
<b>9 Measurement methods for gaseous exhaust emissions</b> .....	<b>3</b>
<b>Annex A (normative) Presentation of results</b> .....	<b>5</b>
<b>Annex B (informative) Examples of gaseous exhaust emissions correction method</b> .....	<b>8</b>
<b>Bibliography</b> .....	<b>10</b>

## 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](http://www.iso.org/directives)

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. [www.iso.org/patents](http://www.iso.org/patents)

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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

## Introduction

This International Standard specifies methods for the direct measurement of the concentration of gaseous exhaust emissions from motorcycles during inspections, official roadside checks or maintenance. Although ISO 3929 specifies methods for the direct measurement of the concentration of gaseous exhaust emissions from road vehicles, this International Standard is the adaptation of ISO 3929 to comply with needs specific to motorcycles.



# Motorcycles — Measurement methods for gaseous exhaust emissions during inspection or maintenance

## 1 Scope

This International Standard specifies methods for the direct measurement of the concentration of gaseous exhaust emissions from motorcycles as defined in ISO 3833 during inspection or maintenance. The results measured by this International Standard show the concentration of gaseous exhaust emissions in the no-load engine operating condition. It is applicable to motorcycles having spark ignition engines (four-stroke engines or two-stroke engines). This methods can be used, either totally or partially, for

- periodic inspections in official garages,
- official roadside checks, and
- maintenance and diagnostic operations.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/PAS 3930/OIML R99<sup>1)</sup>, *Instruments for measuring vehicle exhaust emissions*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### idling condition

no-load operating condition of engine warmed up in accordance with 7.1, with no manual operation with fuel system controls (throttle, choke, etc.); the gear in neutral, and the manual clutch engaged for motorcycles with the manual transmission; the parking condition for motorcycles with the automatic transmission; and standard production equipment, accessories and optional equipment that modify the engine speed used in accordance with the manufacturer's recommendations or regulatory requirements

Note 1 to entry: Automatically operated headlamps are standard production equipment. There is a possibility that headlamp operation influences the test results of gaseous exhaust emissions.

### 3.2

#### idling speed

engine speed (range) specified by the manufacturer under the idling condition

## 4 Instrumentation

The instruments listed below shall be prepared:

**4.1 Analyser**, in accordance with ISO/PAS 3930/OIML R99, suitable for the concentrations of gaseous exhaust emissions from the motorcycles under test.

1) Joint ISO/OIML (International Organization of Legal Metrology) document.