INTERNATIONAL STANDARD

ISO 6460-2

Second edition
2014-12-01

Motorcycles — Measurement method for gaseous exhaust emissions and fuel consumption —

Part 2: Test cycles and specific test conditions

Motocycles — Méthode de mesure des émissions de gaz d'échappement et de la consommation de carburant —

Partie 2: Conditions d'essai spécifiques et cycles d'essai

Reference number
ISO 6460-2:2014(E)

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Published in Switzerland

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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 (see 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 (see 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.

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 22, *Motorcycles*.

This second edition cancels and replaces the first edition (ISO 6460-2:2007), which has been technically revised.

ISO 6460 consists of the following parts, under the general title *Motorcycles — Measurement method for gaseous exhaust emissions and fuel consumption*:

— *Part 1: General test requirements*

— *Part 2: Test cycles and specific test conditions*

— *Part 3: Fuel consumption measurement at a constant speed*

Introduction

This part of ISO 6460 has been prepared to provide details of the typical test cycles for measurement of gaseous exhaust emissions and fuel consumption. The measurements can be carried out by referring to this part of ISO 6460 and to ISO 6460-1.

Motorcycles — Measurement method for gaseous exhaust emissions and fuel consumption —

Part 2:
Test cycles and specific test conditions

1 Scope

This part of ISO 6460 defines test cycles for measurement for the gaseous exhaust emissions from motorcycles, as well as for determining the fuel consumption of motorcycles as defined in ISO 3833, equipped with a spark ignition engine (four-stroke engine, two-stroke engine, or rotary piston engine) or a compression ignition engine. The test cycle 1 is equivalent to the test cycle specified in the European Union Commission Directive 2003/77/EC[6] and the test cycle 2 is equivalent to the test cycle specified in global technical regulations No.2 (WMTC), United Nations Economic Commission for Europe, ECE/TRANS/180/Add.2[9]. A selection of other test cycles adopted or to be adopted by several countries is described in Annex C for information purpose.

2 Normative references

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

ISO 4106, *Motorcycles — Engine test code — Net power*

ISO 6460-1, *Motorcycles — Measurement method for gaseous exhaust emissions and fuel consumption — Part 1: General test requirements*

ISO 7117, *Motorcycles — Measurement method for determining maximum speed*

3 Test cycle 1

3.1 General

The test cycle 1 is equivalent to the test cycle specified in European Union Commission Directive 2003/77/EC[6].

a) For vehicle types with an engine capacity less than 150 cm^3, the test shall be conducted by carrying out six elementary urban cycles. The emission sampling shall begin before or at the initiation of the engine start-up procedure and end on conclusion of the final idling period of the last elementary urban cycle.

b) For vehicle types with an engine capacity greater than or equal to 150 cm^3, the test shall be conducted by carrying out six elementary urban cycles and one extra-urban cycle. The emission sampling shall begin before or at the initiation of the engine start-up procedure and end on conclusion of the final idling period of the extra-urban cycle.

During the test, the exhaust gases shall be diluted with air so that the flow volume of the mixture remains constant. Throughout the test, a continuous flow of samples of the mixture shall be passed into one or more bags so that concentrations (average test values) of carbon monoxide, unburnt hydrocarbons, oxides of nitrogen, and carbon dioxide can be determined.