

This is a preview of "ISO 8178-6:2018". [Click here to purchase the full version from the ANSI store.](#)

Second edition
2018-04

Reciprocating internal combustion engines — Exhaust emission measurement —

Part 6: Report of measuring results and test

Moteurs alternatifs à combustion interne — Mesurage des émissions de gaz d'échappement —

Partie 6: Rapport de mesure et d'essai



Reference number
ISO 8178-6:2018(E)

© ISO 2018



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

This is a preview of "ISO 8178-6:2018". Click here to purchase the full version from the ANSI store.

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	1
5 Emissions test report	3
5.1 Introduction	3
5.2 General information	4
5.3 Engine information	4
5.4 Ambient and engine test data	4
5.5 Gaseous emissions data	4
5.5.1 Steady-state discrete mode test	4
5.5.2 Steady-state RMC test and transient test	4
5.6 Particulate emissions data	5
5.6.1 Steady-state discrete mode test	5
5.6.2 Steady-state RMC and transient test	5
5.7 Test cell information	5
5.8 Fuel characteristics	5
5.9 Smoke test data	5
Annex A (informative) Tables for emissions test report	6
Bibliography	28

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 voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 70, *Internal combustion engines*, Subcommittee SC 8, *Exhaust gas emission measurement*.

This second edition cancels and replaces the first edition (ISO 8178-6:2000), which has been technically revised. The main changes compared to the previous edition are as follows:

- alignment with the latest editions of ISO 8178-1, ISO 8178-4, ISO 8178-5, ISO 8178-7 and ISO 8178-8;
- application to steady state RMC test cycle, transient test cycle and control area;
- update of test engine information;
- revision of exhaust components to be measured;
- consideration of Infrequent Regeneration Adjustment Factors (IRAF);
- comprehension of validation criteria for particulate sampling;
- provision of the background correction for particulate mass emission;
- simplification of the fuel characteristics table;
- update of the smoke test data.

A list of all parts in the ISO 8178 series can be found on the ISO website.

This is a preview of "ISO 8178-6:2018". [Click here to purchase the full version from the ANSI store.](#)

Introduction

Results of an emissions test are presented clearly and include all information pertinent to the derivation of the emission test results. An accuracy or uncertainty analysis relevant to the test system used and engine being evaluated is made by the laboratory. A record is made of the measurement equipment being used, the ambient conditions, the engine performance and the fuel used. Recommendations for the data to be recorded are given regardless of the type of fuel being used.

The data format described in this document is intended to be used by individuals measuring emissions using the ISO 8178 series.

As expressed in ISO 8178-1 and ISO 8178-2, the emission results are stated in either "g/kWh" (preferred) or in "g/m³".