

### SLOVENSKI STANDARD SIST EN ISO 8178-6:2001

01-junij-2001

Reciprocating internal combustion engines - Exhaust emission measurement - Part 6: Report of measuring results and test (ISO 8178-6:2000)

Reciprocating internal combustion engines - Exhaust emission measurement - Part 6: Report of measuring results and test (ISO 8178-6:2000)

Hubkolben-Verbrennungsmotoren - Abgasmessung - Teil 6: Prüfbericht und Meßergebnisse (ISO 8178-6:2000) AND ARD PREVIEW

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Moteurs alternatifs a combustion interne - Mesurage des émissions de gaz d'échappement - Partie 6: Rapport de mesure et d'essai (ISO 8178-6:2000)

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ICS:

13.040.40 Emisije nepremičnih virov Stationary source emissions 27.020 Motorji z notranjim Internal combustion engines

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM **EN ISO 8178-6** 

November 2000

ICS 13.040.50

### English version

## Reciprocating internal combustion engines - Exhaust emission measurement - Part 6: Report of measuring results and test (ISO 8178-6:2000)

Moteurs alternatifs à combustion interne - Mesurage des émissions de gaz d'échappement - Partie 6: Rapport de mesure et d'essai (ISO 8178-6:2000) Hubkolben-Verbrennungsmotoren - Abgasmessung - Teil 6: Prüfbericht und Meßergebnisse (ISO 8178-6:2000)

This European Standard was approved by CEN on 18 October 2000.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

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### **Corrected 2000-04-04**

#### **Foreword**

The text of the International Standard ISO 8178-6:2000 has been prepared by Technical Committee ISO/TC 70 "Internal combustion engines" in collaboration with Technical Committee CEN/TC 270 "Internal combustion engines", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2001, and conflicting national standards shall be withdrawn at the latest by May 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

#### **Endorsement notice**

The text of the International Standard ISO 8178-6:2000 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

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This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

Publication	Year	Title	EN	Year
ISO 8178-1	1996	Reciprocating internal combustion engines - Exhaust emission measurement - Part 1: Test-bed measurement of gaseous and particulate exhaust emissions	ISO 8178-1	1996
ISO 8178-2	1996 1 <b>Te</b>	Reciprocating internal combustion engines - Exhaust emission measurement - Part 2: Measurement of gaseous and particulat e exhaust emissions at site	ISO 8178-2	1996
ISO 8178-4	h <b>1996</b> stand	SIST EN ISO 8178-6:2001  de Reciprocating internal combustion3-1d7f- engines de Exhaust emission 178-6-2001 measurement - Part 4: Test cycles for different engine applications	4 <b>180</b> /81 <b>7</b> 8-4	1996
ISO 8178-5	1997	Reciprocating internal combustion engines - Exhaust emission measurement - Part 5: Test fuels	ISO 8178-5	1997

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## INTERNATIONAL STANDARD

ISO 8178-6

First edition 2000-11-01

# Reciprocating internal combustion engines — Exhaust emission measurement —

Part 6:

Report of measuring results and test

iTeh STANDARD PREVIEW
Moteurs alternatifs à combustion interne — Mesurage des émissions de gaz d'échappement — eh.ai)

Partie 6: Rapport de mesure et d'essai

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Reference number ISO 8178-6:2000(E)

ISO 8178-6:2000(E)

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ISO 8178-6:2000(E)

### **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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 8178 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 8178-6 was prepared by Technical Committee ISO/TC 70, *Internal combustion engines*, Subcommittee SC 8, *Exhaust gas emission measurement*.

ISO 8178 consists of the following parts, under the general title *Reciprocating internal combustion engines* — *Exhaust emission measurement.* 

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   Part 1: Test-bed measurement of gaseous and particulate exhaust emissions
- Part 2: Measurement of gaseous and particulate exhaust emissions at site
- Part 3: Definitions and methods of measurement of exhaust gas smoke under steady-state conditions
- Part 4: Test cycles for different engine applications
- Part 5: Test fuels
- Part 6: Report of measuring results and test
- Part 7: Engine family determination
- Part 8: Engine group determination
- Part 9: Test cycles and test procedures for test bed measurement of exhaust gas smoke emissions from compression ignition engines operating under transient conditions
- Part 10: Test cycles and test procedures for field measurement of exhaust gas smoke emissions from compression ignition engines operating under transitory conditions

Annex A forms a normative part of this part of ISO 8178.

ISO 8178-6:2000(E)

### Introduction

Results of an emissions test shall be presented clearly and should 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 should be made by the laboratory. A record shall be 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 to the type of fuel being used.

The data format recommended in this part of ISO 8178 is intended to be used by individuals measuring emissions using ISO 8178-1, ISO 8178-2, ISO 8178-9 or ISO 8178-10, but is not intended to contradict or replace existing data formats which may be required by some regulatory bodies.

As expressed in ISO 8178-1 and ISO 8178-2, the emission results shall be stated in either "g/kWh" (preferred) or in "g/m³". It should be noted that some regulators require the results to be expressed in unique measurement units; this should be determined prior to testing.

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