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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 8190.6-2022

Replacing GB/T 8190.6-2006

Reciprocating internal combustion engines - Exhaust emission measurement - Part 6: Report of measuring results and test

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1.Structure and Drafting Rules of Standardization Documents" drafted.

This document is part 6 of GB/T 8190 "Measurement of Emissions of Reciprocating Internal Combustion Engines". GB/T 8190 has released the following parts.

--- Part 1.Test bench measurement systems for gaseous and particulate emissions;

--- Part 2.Field measurements of gaseous and particulate emissions;

--- Part 3.Definition and measurement of exhaust smoke in steady state conditions;

--- Part 4.Steady-state and transient test cycles of engines for different purposes;

--- Part 5.Test fuel;

--- Part 6.Measurement results and test reports;

--- Part 7.Determination of engine family;

--- Part 8.Determination of engine group;

--- Part 9.Test cycles and test procedures for the measurement of exhaust smoke test benches under transient conditions of compression ignition engines;

--- Part 10.Test cycles and test procedures for on-site measurement of exhaust smoke in transient conditions of compression ignition engines.

This document replaces GB/T 8190.6-2006 "Reciprocating Internal Combustion Engine Emission Measurement Part 6.Measurement Results and Test Report", and

Compared with GB/T 8190.6-2006, in addition to structural adjustment and editorial changes, the main technical changes are as follows.

--- Added RMC test and transient test for gas emissions (see 5.5.2);

--- Added RMC test and transient test for particulate emissions (see 5.6.2);

---Appendix A is changed from "normative" to "informative".

This document is identical to ISO 8178-6.2018 "Reciprocating Internal Combustion Engine Emission Measurements - Part 6.Measurement Results and Test Reports".

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

The presentation of the results of the emission test is clear and unambiguous and includes all information related to the results of the emission test. The test system used and the

The accuracy or uncertainty analysis of the test engine is carried out in the laboratory. Records include measuring equipment, environmental conditions, engine

performance and fuel used. It is recommended that the data recorded is independent of the type of fuel used.

The data format in this document can be used separately when using GB/T 8190 for emission measurement.

Consistent with the expressions in ISO 8178-1 and ISO 8178-2, the emission test results are expressed in "g/(kW.h)" (recommended) or "g/m3".

ISO 8178 has 11 parts until.2017.

--- Part 1.Test bench measurements of gaseous and particulate emissions. The purpose is to establish the gas and

Test bench measurement and assessment methods for particulate emissions.

--- Part 2.Field measurements of gaseous and particulate emissions. The purpose is to establish the steady-state and transient conditions of the reciprocating internal combustion engine.

Field testing and assessment methods for body and particulate emissions.

--- Part 3.Definition and measurement of exhaust smoke in steady state conditions. The purpose is to establish the two conditions under the steady state operating conditions of the reciprocating internal combustion engine.

A method of measuring smoke extraction characteristics. One method is to evaluate the

extinction of smoke by measuring the brightness of the light beam, and the other method is to evaluate the extinction of smoke.

The soot content is assessed by measuring the blackness of the filter paper.

--- Part 4.Steady-state test cycles of engines for different purposes. The purpose is to establish the connection to the dynamometer for measurement and evaluation

Steady-state test cycle for gaseous and particulate emissions from a reciprocating internal combustion engine.

--- Part 5.Test fuel. The purpose is to establish the recommended usage for emission measurements according to the emission test cycle described in ISO 8178-4.

fuel used.

--- Part 6.Measurement results and test reports. The purpose is to establish a data format for the reporting of emissions measurements for reciprocating internal combustion engines.

--- Part 7.Determination of engine family. The purpose is to establish the criteria used to determine engine family specifications and select source engines.

parameter.

--- Part 8.Determination of engine group. The purpose is to establish the technical specifications used to determine the engine train and select the train source engine

parameter.

--- Part 9.Test cycles and test procedures for the measurement of exhaust smoke test benches under transient conditions of compression ignition engines. The purpose is to make sure

Test cycle and test procedure for assessing exhaust smoke from compression ignition engines standing on a test bench.

--- Part 10.Test cycles and test procedures for on-site measurement of exhaust smoke in transient conditions of compression ignition engines. The purpose is to establish

Test cycle and test procedure for assessing exhaust smoke from compression ignition engines under field conditions.

--- Part 11.Test bench measurements of gaseous and particulate emissions under transient conditions of non-road mobile machinery engines. the purpose is

Establishment of a test bench measurement and evaluation method for gaseous and particulate emissions under transient conditions of reciprocating internal combustion engines.

For ease of use, ISO 8178 was adjusted in.2017 and.2019.In.2017, ISO 8178-1.2006, ISO

8178-

4.2007 and ISO 8178-11.2006 were integrated into ISO 8178-1.2017 and ISO 8178-4.2017; in.2019, ISO 8178-3.

1994, ISO 8178-9.2012 and ISO 8178-10.2002 consolidated into ISO 8178-3.2019 and ISO 8178-9.2019.2020

In.2017, ISO 8178-1.2017 and ISO 8178-4.2017 were revised again to ISO 8178-1.2020 and ISO 8178-4.2020.So far,

ISO 8178 is composed of 9 parts from the original 11 parts, GB/T 8190 is intended to be consistent with it, and also consists of 9 parts.

--- Part 1.Test bench measurement systems for gaseous and particulate emissions. The purpose is to establish a reciprocating internal combustion engine gas and particle emissions

Test bench measurement method for put objects.

--- Part 2.Field measurements of gaseous and particulate emissions. The purpose is to establish field testing and evaluation of gaseous and particulate emissions.

determined method.

--- Part 3.Test procedures for measuring exhaust smoke from compression ignition engines using a filter paper smoke meter. The aim is to establish a reciprocating

Method for measuring exhaust smoke using filter paper type smoke meter under steady state working condition of internal combustion engine.

--- Part 4.Steady-state and transient test cycles of engines for different purposes. The purpose is to establish a reciprocating internal

Test cycles, test procedures and evaluation of gas and particulate emissions from combustion engines.

--- Part 5.Test fuel. The purpose is to establish the recommended emission measurement according to the emission test cycle described in GB/T 8190.4.

fuel used.

--- Part 6.Measurement results and test reports. The purpose is to establish a data format for the reporting of emissions measurements for reciprocating internal combustion engines.

--- Part 7.Determination of engine family. The purpose is to establish the criteria used to determine engine family specifications and select source engines.

parameter.

--- Part 8.Determination of engine group. The purpose is to establish the technical