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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Reciprocal internal combustion engines — Performance —

Part 2: Test methods

Moteurs alternatifs à combustion interne — Performances —

Partie 2: Méthodes d'essai

Reference number
ISO 3046-2: 1987 (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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 3046-2 was prepared by Technical Committee ISO/TC 70, *Internal combustion engines.*

This second edition cancels and replaces the first edition (ISO 3046-2 : 1977), of which it constitutes a technical revision.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Reciprocal internal combustion engines — Performance —

Part 2: Test methods

1 Scope

This part of ISO 3046 specifies acceptance and type test methods for reciprocating internal combustion engines in commercial production. Where necessary, individual requirements are given for particular engine applications.

2 Field of application

This part of ISO 3046 covers reciprocating internal combustion engines for land, rail-traction and marine use, excluding engines used to propel agricultural tractors, road vehicles and aircraft.

This part of ISO 3046 may be applied to engines used to propel road construction and earth-moving machines, industrial trucks and for other applications where no suitable International Standard for these engines exists.

This part of ISO 3046 may be applied to tests on a test bed at the manufacturer's works and to tests on site (see 7.1.4).

3 References

ISO 3046, *Reciprocating internal combustion engines — Performance —*

Part 1: Standard reference conditions and declarations of power, fuel consumption and lubricating oil consumption.

Part 3: Test measurements.

Part 4: Speed governing.

Part 5: Torsional vibrations.

Part 6: Overspeed protection.

4 Definitions

For the purposes of this part of ISO 3046, the following definitions apply.

4.1 acceptance test: Test carried out as an overall check on the manufacturing quality, and to establish that the contractual commitments have been fulfilled.

4.2 type test: Test carried out on representative engines of a certain engine type to establish the main performance data of the engine and, as far as possible, to enable their reliability and durability in service to be assessed.

4.3 special test: Test additional to acceptance or type tests carried out to meet the requirements of inspecting and legislative authorities, Classification Societies or customers.

NOTE — Special tests are subject to agreement between the manufacturer and customer.

4.4 power adjustment: Calculation procedure by which a power at one set of ambient conditions is modified to represent the power expected under another set of ambient conditions. Power adjustment may require engine adjustment. (See 4.6 and 7.2.1.)

4.5 power correction: Calculation procedure by which a power determined under engine test conditions is modified so that it represents the power expected under other operational or reference conditions without any engine adjustment.

4.6 engine adjustment: Physical procedure of modifying an engine for the purpose of adapting it to a different set of ambient conditions, such as by moving the limiting fuel stop, re-matching the turbocharger, changing the fuel injection timing or other mechanical changes.

5 Designation of tests

This part of ISO 3046 gives two test categories: reference may be made to the relevant category of test as follows:

— ISO 3046-2 — A (for acceptance tests; see 10.1);

— ISO 3046-2 — T (for type tests; see 10.2).

6 Extent of tests

6.1 The programme of acceptance and type tests shall be established by the manufacturer.