
Road vehicles — Road load —

Part 2:

Reproduction on chassis dynamometer

Véhicules routiers — Résistance sur route —

Partie 2: Reproduction sur banc dynamométrique



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 10521-2 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 5, *Engine tests*.

This first edition, together with ISO 10521-1, cancels and replaces ISO 10521:1992, which has been technically revised.

ISO 10521 consists of the following parts, under the general title *Road vehicles — Road load*:

- *Part 1: Determination under reference atmospheric conditions*
- *Part 2: Reproduction on chassis dynamometer*

Introduction

This part of ISO 10521 has been prepared to reflect the state-of-the-art technique for the vehicle road-load setting on chassis dynamometers. ISO10521-1 should be referred to for the basic road-load measurement method. This part contains the following technical and editorial changes compared with ISO 10521:1992:

- to simulate the road load on the chassis dynamometer precisely, the hydraulic absorber type dynamometer is excluded;
- only the chassis dynamometer of coefficient control is described in this part of ISO10521.

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Road vehicles — Road load —

Part 2:

Reproduction on chassis dynamometer

1 Scope

This part of ISO 10521 specifies methods of setting the target road load on chassis dynamometers for the purpose of a subsequent test, for example the fuel consumption test or the exhaust-emission measurement test.

The road-load setting method on chassis dynamometers depends on the road-load measurement method, such as the coastdown method, the torquemeter method or the wind-tunnel and chassis-dynamometer method. This part of ISO 10521 gives detailed instructions on the methods of the chassis-dynamometer setting procedure for road-load value, obtained by the various measurement methods specified in ISO 10521-1.

This part of ISO 10521 is applicable to chassis dynamometers that can set road load at a minimum of three speed points, and to motor vehicles as defined in ISO 3833 up to a gross vehicle mass of 3 500 kg.

2 Normative references

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

ISO 3833, *Road vehicles — Types — Terms and definitions*

ISO 10521-1:2006, *Road vehicles — Road load — Part 1: Determination under reference atmospheric conditions*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 3833 and the following apply.

3.1

total resistance

total force-resisting movement of a vehicle movement, measured either by the coastdown method or by the wind-tunnel and chassis-dynamometer method, including the friction forces in the drive train

3.2

running resistance

torque-resisting movement of a vehicle, measured by the torquemeter installed in the drive-train of a vehicle, including the friction torque in the drive-train downstream of the torquemeter