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Fourth edition
2012-06-01

Passenger cars — Steady-state circular driving behaviour — Open-loop test methods

Voitures particulières — Tenue de route en régime permanent sur trajectoire circulaire — Méthodes d'essai en boucle ouverte



Reference number
ISO 4138:2012(E)

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Published in Switzerland

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Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
4.1 Test methods	1
4.2 Equivalence of test methods	2
5 Variables	2
5.1 Reference system	2
5.2 Measurement	2
6 Measuring equipment	3
6.1 Description	3
6.2 Transducer installation	3
6.3 Data processing	3
7 Test conditions	3
8 Test procedure	3
8.1 Warm-up	3
8.2 Initial driving condition	3
8.3 General test description	4
8.4 Method 1 — Constant radius	4
8.5 Method 2 — Constant steering-wheel angle	5
8.6 Method 3 — Constant speed	5
9 Data analysis	6
9.1 General	6
9.2 Lateral acceleration	6
9.3 Path radius	7
10 Data evaluation and presentation of results	7
10.1 General	7
10.2 Plotted results (see also Annex A)	7
10.3 Evaluation of characteristic values	8
Annex A (normative) Presentation of results	12
Annex B (normative) Determination of overall (static) steering ratio	17
Annex C (informative) General information — Theoretical basis for the test methods	18
Bibliography	19

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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.

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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 4138 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 9, *Vehicle dynamics and road-holding ability*.

This fourth edition cancels and replaces the third edition (ISO 4138:2004), which has been technically revised.

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Introduction

The main purpose of this International Standard is to provide repeatable and discriminatory test results.

The dynamic behaviour of a road vehicle is a very important aspect of active vehicle safety. Any given vehicle, together with its driver and the prevailing environment, constitutes a closed-loop system that is unique. The task of evaluating the dynamic behaviour is therefore very difficult since the significant interactions of these driver–vehicle–environment elements are each complex in themselves. A complete and accurate description of the behaviour of the road vehicle must necessarily involve information obtained from a number of different tests.

Since this test method quantifies only one small part of the complete vehicle handling characteristics, the results of these tests can only be considered significant for a correspondingly small part of the overall dynamic behaviour.

Moreover, insufficient knowledge is available concerning the relationship between overall vehicle dynamic properties and accident avoidance. A substantial amount of work is necessary to acquire sufficient and reliable data on the correlation between accident avoidance and vehicle dynamic properties in general and the results of these tests in particular. Consequently, any application of this test method for regulation purposes will require proven correlation between test results and accident statistics.