

Passenger cars — Free-steer behaviour —

Part 2: Steering-pulse open-loop test method

ICS 43.100

National foreword

This British Standard reproduces verbatim ISO 17288-2:2004 and implements it as the UK national standard.

The UK participation in its preparation was entrusted to Technical Committee AUE/15, Safety related to vehicles, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, the ISO title page, pages ii to v, a blank page, pages 1 to 13 and a back cover.

The BSI copyright notice displayed in this document indicates when the document was last issued.

Amendments issued since publication

Amd. No.	Date	Comments

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 2 September 2004

© BSI 2 September 2004

ISBN 0 580 44415 5

INTERNATIONAL STANDARD

ISO
17288-2

First edition
2004-08-15

Passenger cars — Free-steer behaviour —

Part 2: Steering-pulse open-loop test method

Voitures particulières — Comportement volant libre —

Partie 2: Méthode d'essai en boucle ouverte avec impulsion au volant



Contents		Page
Foreword		iv
Introduction.....		v
1	Scope	1
2	Normative references.....	1
3	Terms and definitions	1
4	Principle	1
5	Variables.....	2
6	Measuring equipment	2
7	Test conditions	3
8	Test procedure	3
9	Data analysis	4
Bibliography.....		13

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 17288-2 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 9, *Vehicle dynamics and road-holding ability*.

ISO 17288 consists of the following parts, under the general title *Passenger cars — Free-steer behaviour*:

- *Part 1: Steering-release open-loop test method*
- *Part 2: Steering-pulse open-loop test method*

Introduction

The dynamic behaviour of road vehicles is a most important part of active vehicle safety. Any given vehicle, together with its driver and the prevailing environment, forms a unique closed-loop system. The task of evaluating dynamic behaviour is therefore very difficult since there is a significant interaction between these driver-vehicle-environment elements, and each element is individually complex itself. A complete and accurate description of the behaviour of the road vehicle must necessarily involve information obtained from a number of tests of different types. Since they quantify only a small part of the whole handling field, 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 accident avoidance and the dynamic characteristics evaluated by these tests. A substantial amount of effort 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. Therefore, it is not possible to use these methods and test results for regulation purposes at present. The best that can be expected is that the free-steer behaviour tests be used as some of many tests which, taken together, will cover the field of vehicle dynamic behaviour.

Finally, the role of the tyres is important and the test results can be strongly influenced by the type and condition of tyres.