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भारतीय मानक प्रारूप

ऑटोमोटिव वाहन - ओडोमीटर प्रणाली - मूल्यांकन की विधि

Draft Indian Standard

AUTOMOTIVE VEHICLES - ODOMETER SYSTEMS - METHOD OF EVALUATION

ICS: 43.020, 43.040

Automotive Braking Systems, Vehicle Testing, Steering and Performance Evaluation Sectional Committee, TED 4	Last date for receipt of comments 05/01/2023

Automotive Braking and Steering Systems, Vehicle Testing and Performance Evaluation Sectional Committee, TED 04

FOREWORD

This draft Indian Standard shall be adopted by Bureau of Indian Standards, after the draft finalized by the Automotive Braking and Steering Systems, Vehicle Testing and Performance Evaluation Sectional Committee is approved by the Transport Engineering Division Council.

This standard was first published in 1998 to specify the method of evaluation of odometer system fitted on all types of vehicles. In this Revision Amendment no. 1 (2018) to IS 11850: 1998 was incorporated also references were updated in view the technological advancements that have taken place since its last Publication

The composition of the committee responsible for formulation of this standard is given as Annex A. (Will be added later)

For the purpose of deciding whether a particular requirement of this standard is compiled with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:2022 ‘Rules for rounding off numerical values (second revision)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Draft Indian Standard

AUTOMOTIVE VEHICLES - ODOMETER SYSTEMS - METHOD OF EVALUATION

1 SCOPE

This standard specifies the method of evaluation of odometer system fitted on all types of vehicles.

2 REFERENCES

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	*Title*
IS 11422: 2001	Terms and definitions of weights of two wheeled motor vehicles (First Revision)
IS 9211: 2003	Terms and definitions of weights of road vehicles other than 2 and 3 wheelers (Second Revision)

3 PREPARATION OF THE VEHICLE

3.1 The vehicle shall conform in all its parts, components and systems to the design and/or production series as applicable.

3.2 The vehicle shall be run in accordance with the practice recommended by the manufacturer.

3.3 The vehicle in the kerb weight condition as per IS 11422 or IS 9211 plus a maximum of 180 kg for the driver, testing personal and any necessary equipment or instrumentation.

3.4 The vehicle shall be fitted with tyres which have not covered more-than 10 percent of their expected life. Tread depth measurement may be used to assess the tyre life. The tyres shall be inflated in cold condition to the pressure as recommended by the vehicle manufacturer corresponding to the maximum total weight.

3.5 Prior to testing, it shall be ensured that all instruments mounted on the vehicle shall not hamper the visibility or freedom of the driver to have proper control of the vehicle at all the times.

4 EVALUATION OF CALIBRATION

4.1 The vehicle shall be driven on a test track or on a roadway (such as national highway). The actual distance covered shall not be less than:

a) 10 km, if the least count of odometer is less than 1 km, and
b) 30 Km, if the least count of odometer is equal to or more than 1 km.

prior to testing it shall be ensured that the last digit of the odometer shall just reach the next digit and the same shall be noted as initial reference point.

4.2 The actual distance travelled may be ascertained by either of the following methods:

a) By recording the actual distance travelled by the vehicle, by using instruments such as fifth wheel or contactless distance measuring system. In that case, the test shall be conducted in such a way that at the end of the test, the last digit of the odometer shall be at the initial reference point.

b) By driving the vehicle between two fixed marks on the test track, the distance between which has already been established. The vehicle shall be continued to be driven till the last digit of the odometer reaches the initial reference point and this distance shall be measured by a tape and added to the distance travelled. The distance indicated on the odometer shall also be recorded.

4.3 The test shall be carried out twice in accordance with 3.1 and 3.2 and each one shall be considered as one pass.

4.4 Odometer error shall be calculated as under:

$$\text{Odometer error, percent} = \frac{\begin{array}{c}\text{Sum of indicated distance on odometer for}\\ \text{two passes minus}\\ \text{sum of actual distances travelled for two passes}\end{array}}{\text{Sum of actual distance travelled for two passes}} \text{ x } 100$$

4.5 The odometer error shall not exceed ± 10 percent.

ANNEX A
(*Foreword*)

COMMITTEE COMPOSITION

AUTOMOTIVE BRAKING SYSTEMS, VEHICLE TESTING, STEERING AND PERFORMANCE EVALUATION SECTIONAL COMMITTEE, TED 4

(Will be added later)