

---

# International Standard



# 7117

---

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

---

## Road vehicles — Measurement method for the maximum speed of motorcycles

*Véhicules routiers — Méthode de mesurage de la vitesse maximale des motocycles*

First edition — 1981-06-15

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[ISO 7117:1981](#)

<https://standards.iteh.ai/catalog/standards/sist/986cf763-ecfa-4f1c-9de5-05569a296a69/iso-7117-1981>

---

UDC 629.118.6 : 629.11.072

Ref. No. ISO 7117-1981 (E)

**Descriptors** : road vehicles, motorcycles, measurement, speed.

Price based on 2 pages

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

International Standard ISO 7117 was developed by Technical Committee ISO/TC 22, *Road vehicles*, and was circulated to the member bodies in February 1980.

**ITeH STANDARD PREVIEW**  
**(standards.iteh.ai)**

It has been approved by the member bodies of the following countries :

ISO 7117:1981

Austria	Germany, F. R.	Romania
Belgium	Ireland	South Africa, Rep. of
Brazil	Italy	Spain
Bulgaria	Japan	Sweden
China	Korea, Dem. P. Rep. of	United Kingdom
Czechoslovakia	Korea, Rep. of	USA
Denmark	Mexico	USSR
Egypt, Arab Rep. of	Netherlands	
France	Poland	

The member body of the following country expressed disapproval of the document on technical grounds :

Switzerland

# Road vehicles — Measurement method for the maximum speed of motorcycles

## 1 Scope and field of application

This International Standard specifies the method of determining the maximum speed of motorcycles.

## 2 References

ISO 3833, *Road vehicles — Type — Denominations and definitions*.

ISO 1176, *Road vehicles — Weights — Vocabulary*.

## 3 Preparation of the vehicles

3.1 The vehicle must conform in all its parts and components with the production series.

3.2 The adjustment of the fuel feed and ignition devices, the viscosity of the oils for the moving mechanical parts and the pressure of the tyres should conform to the instructions given by the manufacturer of the vehicle.

3.3 The engine and the transmission shall be properly run in, according to the manufacturer's instructions.

3.4 Before the test, all parts of the vehicle shall be stabilized at the temperature normal for the vehicle in use.

3.5 The weight of the vehicle shall be the vehicle kerb weight.

3.6 The distribution of the load between the wheels shall be in conformity with the manufacturer's instructions.

## 4 Driver

4.1 The driver shall have a mass between 70 and 75 kg and a height between 1,65 and 1,75 m.

4.2 The driver shall wear a well-fitting riding suit (one piece) or similar clothing.

4.3 He shall be seated on the seat provided for the rider, his feet upon the pedals or foot-rests, with the arms normally extended. For motorcycles with a maximum speed greater than 120 km/h, with the rider seated upright, the rider shall have the equipment and shall adopt the riding position specified by the manufacturer. This position shall, nevertheless, allow the rider at all times to have proper control of the vehicle during the test. The position of the rider should remain unchanged during the whole measurement; the description of the position shall be indicated in the test report or shall be replaced by photographs.

## 5 Features of the test track

The test shall be carried out on a roadway

- which allows the maximum speed to be maintained over a measuring strip of 200 m. This distance must be established to the nearest 1 m. The entry section to the measuring strip must be of the same nature (surface and longitudinal profile) as the strip and sufficiently long to permit the vehicle to attain its maximum speed;
- in a straight line;
- clean, smooth, dry, covered with asphalt or a similar material;
- with not more than 1 % slope in the length and not more than 3 % lateral slope. The difference in altitude between any two points on the test strip must not exceed 1 m.

## 6 Atmospheric conditions

- Atmospheric pressure :  $100 \pm 3$  kPa
- Temperature : between 278 and 303 K
- Relative humidity : 50 to 95 %
- Maximum wind speed : 3 m/s

## 7 Test procedure

7.1 The gear ratio which allows the vehicle to attain its maximum speed on the level shall be used. The throttle control shall be held fully open and any devices for enriching the mixture shall be rendered inoperative.

7.2 The rider shall maintain the riding position defined in 4.3.

7.3 The vehicle must have reached a constant speed by the time it arrives at the measuring strip. This shall be covered in two successive runs, one in each direction.

7.4 The fuel and lubricants shall be those prescribed by the manufacturer.

7.5 The total time "t" required to cover the measuring strip in each direction shall be determined within 0,7 %.

7.6 The average speed for the run shall be equal to

$$v = \frac{3\,600 \times 0,4}{t}$$

where

t is the time in seconds;

v is the speed of the vehicle in kilometres per hour.

7.7 This measure will be made at least two times consecutively.

## 8 Maximum speed

The maximum speed of the vehicle shall be expressed in kilometres per hour by the nearest round figure which corresponds to the arithmetical average of the values of the speeds measured during two consecutive tests which do not differ by more than 3 %.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

ISO 7117:1981

<https://standards.iteh.ai/catalog/standards/sist/986cf763-ecfa-4fdc-9de5-05569a296a69/iso-7117-1981>