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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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Mopeds -- Measurement method for location of centre of gravity

轻便摩托车重心位置的测量方法

(English Translation)

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References

Foreword

This revised standard adopts the International Standard ISO 8705:2005 "Measurement mopeds gravity center position" (in English).

This standard is based on ISO 8705:2005 redrafted. Listed in Appendix A of this standard reg number and ISO 8705:2005 reg Control list numbered.

Taking into account China's national conditions, adopting ISO 8705:2005, the standard of this made some changes in Appendix B gives these technical List of differences and the reasons for the reference.

For ease of use, for the ISO 8705:2005 This standard also made the following editorial changes.

a) Remove the ISO 8705:2005 Foreword and Introduction;

b) increasing the symbol explanation PKF, PKR in 5.1.2.2 formula wherein;

Increasing the symbol explanation PKL, PKR in 5.1.3.2 formula wherein;

c) Information Appendix C in Table C. 1 adds gravity position measurement method motorcycle horizontal plane and the center of gravity position 2 Motorcycle high center of gravity position measurements.

The Standard Appendix A, Appendix B, Appendix C are informative appendices.

This standard was proposed by the National Development and Reform Commission.

This standard by the National Automotive Standardization Technical Committee.

This standard was drafted. Longxin Industry Co., Ltd., Shanghai Motor Vehicle Inspection Center.

Introduction

Mopeds affect its stability is a very important driving safety factor. Moped/driver combinations thereof and Environment constitutes a unique closed loop (closed-loop) systems, however, due to the stability of the scooter itself, the position of the driver Interaction of multiple factors and the driver's reaction to changing circumstances, so that the assessment of mopeds/driver combination stable Qualitative becomes very complicated.

Sports performance parameters when assessing moped moped determined stability/driver combination is important in vehicle design by According to one.

Measurement method described in this standard involves only one factor affecting the movement stable performance --- mopeds and moped/driving Members combination of gravity body.

The measurement results are given by standard methods acquired (recording format see Appendix C) relates only to the above-mentioned very complex phenomenon of a party Surface, and therefore can not be used alone to evaluate the stability of the vehicle.

Measurement moped center of gravity position

1 Scope

This standard specifies two methods of measurement mopeds and moped/driver combination weight center position.

This standard applies to two mopeds (hereinafter referred to as the motorcycle).

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

CFR49. 572 part B segment [US Federal regulations from the US National Highway Traffic

Safety Administration (NHTSA) published] dummy

3 Terms and Definitions

The following terms and definitions apply to this standard.

Set in the motorcycle right-handed orthogonal coordinate system. When the motorcycle traveling straight on a level surface, in fact x0 axis is horizontal, pointing Front and inside the vehicle longitudinal plane of symmetry; y-axis pointing to the left side of the driver; z axis pointing upward.

Note 1: The coordinate system is suitable for adjusting means and the rotating means together with the motorcycle.

Note 2: Assuming the motorcycle is set on the platform, then the regulation system also apply to this platform.

Set on the ground right-handed orthogonal coordinate system, X-axis and Y-axis is located in a horizontal plane, Z-axis pointing upward.

4 Measurement Conditions

4.1

motorcycle without a driver when the measurement conditions.

- a) motorcycle should be no deformation, should not stick muddy, and manipulate normal; vehicle curb weight should be ready;
- b) by the use of the maintenance requirements of the specification filled with gasoline;
- c) by the use of the maintenance requirements of the specification metered lubricant and coolant;
- d) to a predetermined pressure maintenance instructions to tire;
- e) test equipment should be installed in the specified location (and the meter register description);
- f) front and rear suspension systems should be placed in a static position;
- g) the front wheel should be placed along the X axis.

If the measurement object of the measurement conditions changes, the case modification shall be indicated in the test report.

There motorcycle measuring 4.2 on the driver should meet the following conditions.

- a) motorcycle test conditions in accordance with the provisions of 4.1;
- b) test should use a CFR49. Part 572 Subpart B provisions (AM50 percentile) as the driver

test dummy, fake Quality people should be $76\text{kg} \pm 2\text{kg}$; or use the same quality (or similar physical characteristics) reality as a driver;

c) motorcycles placed in the ground coordinate system, the dummy placed in the center plane of the motorcycle;

d) dummy sitting on the motorcycle seat, his hands holding the direction of the handlebars, feet on the pedals;