

GB

National Standard of the People's Republic of China

GB518 - XXXX

Replace GB518-1997

Motorcycle tyres

(Draft for approval)

Issue date:

Implementation date:

Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China

Foreword

The 4.1~4.3, 4.4.1, 4.5 and Chapter 6 of this standard are mandatory while the rest are voluntary.

This standard is not equivalent to *the Motorcycle tyres (Japanese Version) JIS K6366: 1998*.

This standard will replace the *Motorcycle tyres GB518-1997*.

The main differences between GB518-1997 and this standard are as follows:

- Revoke the regulation that the minimum breaking energy indicator may be lowered by 60% in the case of “a biased tyre with its framework materials of cotton or rayon cords” and the other case that “when semispherical indenter reaches the rim, tyre cases at all measuring points are far from being damaged and measured values fall behind the targeted values in the table” (4.2.1 of Version 1997);
- Add the minimum breaking energy indicators for performance appraisal (the 4.2.1 of this edition);
- Modify the requirements for high speed performance (4.2.3 of Version 1997, the 4.2.3 of this edition);
- Add the requirements for marking adhesion tyres (Chapter 6 of Version 1997);
- Revoke the rules of sampling and inspection and the regulations of packaging, transport and storage (Chapter 5 of Version 1997, 7.2 of this edition).

This standard was proposed by the China Petroleum and Chemical Industry Association.

This standard is under the jurisdiction of the National Technical Committee for Standardisation of Tyres and Rims.

This standard has the National Technical Committee for Standardisation of Tyres & Trims of Motorcycles and Bicycles entrusted for interpretation.

The organisations involved in drafting this standard include the Guangzhou No.1 Rubber Factory, the Cheng Shin Rubber (Xiamen) Ind., Ltd. and the Guangzhou Industrial Rubber Product Research Institute.

The main drafters of this standard include Chen Qiufa, Li Yihua, Xiao Chuhua, Huang Huiwen, Lei Ling and Wang Huimin.

The issuing conditions of all previous versions of the standards replaced by this standard:

- GB518-1965, GB518-1974, GB518-1991 and GB518-1997

Passenger car tyres

1. Scope

This standard specifies the terms and definitions, requirements, test methods and marking of motorcycle tyres.

This standard is applicable to new pneumatic motorcycle tyres.

2. Normative reference

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. For dated references, subsequent amendments (corrigenda excluded) to, or revisions of, any of these publications do not apply. However, parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. For undated references, the latest edition of the normative document referred to applies.

GB/T521	Method of measuring tyre peripheral dimensions
GB/T2983	Specification, size, pneumatic pressure and load of passenger car tyre
GB/T6326	Tyres- Terms and definitions (GB/T 6326-XXXX, ISO4223-1:2002 NEQ)
GB7036.2	Pneumatic tyre tubes Part 2: Motorcycle tyre tubes
GB/T13203	Strength test method for motorcycle tyres (GB/T13203-200X, ISO10231:2003, Motorcycle tyres – Test methods for verifying tyre capabilities, MOD)
GB/T13204	High speed test for motorcycle tyres (Drum method) (GB/T13204-2002, ISO10231:1997, Motorcycle tyres – Test methods for verifying tyre capabilities, MOD)
GB/T13205	Endurance test for motorcycle tyres (Drum method) (GB/T13205–200X, ISO10231:2003, Motorcycle tyres – Test methods for verifying tyre capabilities, MOD)
HG/T2177	Appearance quality of tyres
TCTRSC	the CSBS Yearbook of Tyres, Rims and Bleed Valves

3. Terms and definitions

The terms and definitions, specified in GB/T6326, shall be applicable to this standard.

4. Requirements

4.1 Tyre specification, size, air pressure and load, rim

4.1.1 Tyre specification, measuring rim, sectional width and external diameter of the tyre after charging, pneumatic pressure, load capability, and rim allowed to be used shall comply with GB/T2983.

4.1.2 The tyres uncovered in GB/T2983 shall have their specifications, measuring rims, sectional width and external diameters of the tyre after charging, pneumatic pressure, load capabilities and rims allowed in compliance with TCTRSC.

4.2 Safety performance

4.2.1 Strength performance

A tyre shall be subject to strength performance test with its minimum breaking energy no less than what is regulated in Table 1.

Table 1 Minimum Breaking Energy

Unit: J

Tyre type	Level (PR)	Design sectional width	
		≤62mm	>62mm
Light load	2	15	17
Standard	4	29	34
Enhanced	6	39	45
Heavy-duty	8	48	56
Light motorcycle tyres shall have their breaking energies assessed based on light load type.			

4.2.2 Durability performance

Upon completion of the durability performance test, the tyres shall be exempted from such defects as delaminating, tread block tear out, chapping, joint splitting, cord fabric fissuring or cord breaking; the air pressure of experimental tyres shall not be lower than the initial air pressure.

4.2.3 High speed performance

The tyres, the maximum running speeds of which hit 130km/h and above, shall be subject to high speed performance test. Upon completion of high speed performance test, the tyres shall be exempt from such defects as delaminating, tread block tear out, chapping, joint splitting, blow out, cord fabric fissuring or cord breaking; the air pressure of experimental tyres shall not be lower than the initial air pressure.

4.3 Signs of wear on tyre tread

4.3.1 Each tyre shall have at least three clearly visible signs of wear no less than 0.8mm high on its tread with equal distance radiating from the hub.

4.3.2 The shoulders on both sides of the tyre concerned shall be cast with the marks indicating positions of signs of wear.

4.3.3 When tyres have signs of wear on their treads, they shall not be used further.

4.4 Appearance quality

4.4.1 Tyres shall be exempt from such appearance defects of the laminating between components, sponginess, draw-up and breaking of bead assembly, rupturing of many cords, pleating of tyre liner cords, extruder surging of tyre crown with cords, etc. as they may gravely jeopardise tyre service life. The shape of the rim band shall be free from deformity and band rupture.

4.4.2 It is favourable for the appearance quality of the tyres and rim bands to comply with HG/T2177.

4.5 Tyre tube

If tyre tubes are applied, they shall comply with GB 7036.2.

5. Test methods

5.1 External diameter, sectional width and positional height of signs of wear on the tread of a new tyre after the tyre is charged shall be measured in accordance with GB/T521.

5.2 Tyre strength shall be tested in accordance with GB/T13203.

5.3 Tyre durability shall be tested in accordance with GB/T13205.

5.4 High speed performance of tyres shall be tested in accordance with GB/T13204.

6. Marking

6.1 Each cover tyre shall have the symbols below. Amongst, items from a) to d) denote permanent symbols at tyre side, e) denotes permanent symbol and item f) is a symbol that cannot be washed away.

- a) Specification;
- b) Trademark, factory name or place name;
- c) Level or load index, maximum load and relevant air pressure;
- d) Framework material;
- e) Production number;
- f) Marking of inspection.

6.2 Metric series and codes show that a tyre in the series shall be marked with speed symbol.

6.3 The metric series of tyres with nominal diameter of their rims as 13 and above shall be marked with "M/C".

6.4 Radial tyres shall be marked with the symbol of "RADIAL" or "子午线".

6.5 Tubeless tyres shall be marked with the symbol of "TUBELESS" or "无内胎".

6.6 Adhesion tyres shall be marked with the symbol of "M + S" or "M·S".

6.7 The tyres, tread patterns of which indicate the running direction, shall be marked with the symbol of running direction.

6.8 The symbols stipulated in 6.2-6.7 shall be permanent.
