Operation Directions Governing the Inspection of Tyres

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1. These Directions are stipulated by the Bureau of Standards, Metrology and Inspection (BSMI) for implementing the inspection of tyres.

2. The provisions are applicable to imported and domestically manufactured automobile and motorcycle tyres, not including race tyres.

3. Inspection Scheme: Monitoring Inspection or Registration of Product Certification (Module II-Type Test + Module IV- Full Quality Management System or Module V-Production Quality Management or Module VII-Factory Inspection).

4. Inspection standards and items of monitoring inspection:

   (1) CNS 1431 for automobile tyres, including the following inspection items:

      a. Non-run flat tyres or non-self-supporting tyres: dimension, appearance and labeling requirements stated in the inspection standard; and at least one item from the four items ”high speed performance,” “endurance,” “bead unseating resistance” and “tyre strength.”

      b. Run flat tyres or self-supporting tyres: dimension, appearance and labeling requirements stated in the inspection standard; and at least one item from the five items “high speed performance,” “endurance,” “bead unseating resistance,” “tyre strength” and “flat tyre running mode test.”

      c. Starting from 1 July 2026, in addition to the inspections specified in the preceding two Clauses, passenger car tyres (C1 tyres) and light commercial vehicle tyres (C2 tyres) will be subject to additional testing for "rolling sound emission," "wet grip braking performance," and "rolling resistance coefficient " (hereinafter referred to as energy efficiency items), as well as verification of the "tyre performance grade labeling."

   (2) CNS 4879 for motorcycle tyres: dimension, appearance, and labeling requirements stated in the inspection standard, and at least one item from the four items “high speed performance,” “endurance,” “centrifugal growth performance” and “tyre strength.”

   (3) Check of the commodity name as well as the name and address of the obligatory inspection applicant in accordance with Article 11 of the Commodity Inspection

Act.

(4) Check of the Commodity Inspection Mark in accordance with Article 12 of the Commodity Inspection Act.

5. Procedures for monitoring inspection:

(1) The obligatory inspection applicant shall apply to the BSMI or its branch (hereinafter referred to as the inspection authority) for inspection by submitting an Inspection Application Form before the products are imported or transported out of the production premises if they are domestically manufactured. The Inspection Application Form shall be filled in, item by item, the brand, place of origin and specifications of all products in the same batch. For automobile tyres with run-flat or self-supporting functions, this must be clearly stated in the product name section of the application form. If the applicant fails to comply with these requirements, the inspection authority will not accept the application. Starting from 1 July 2026, passenger car tyres (C1 tyres) and light commercial vehicle tyres (C2 tyres) must also comply with the following requirements:

a. The Inspection Application Form shall be filled in tread patterns of all products in the same batch.

b. At the time of applying for inspection, the applicant must provide a copy of the full energy efficiency test report issued by a designated testing laboratory recognized by the BSMI for each tread pattern type. For tyres of the same brand and same tread pattern (identified based on the primary tread pattern), only one test report is required. The testing principles set forth in Clauses 6(3) and 6(6) shall apply.

c. If a type test report meeting the above requirements has not yet been obtained, the applicant may apply for prior release of products.

(2) The products in the same inspection batch shall mean those declared by the same obligatory inspection applicant and classified under the same C.C.C. Code.

(3) If tyres declared by the same applicant and classified under the same C.C.C. Code pass inspection for three consecutive batches, the subsequent batches shall be sampled for inspection at the possibility of 20% under the condition that they are of the same C.C.C. Code. If the subsequent twenty batches pass inspection without non-compliance records, the sampling rate will be reduced to 10%.

(4) For batches selected for batch-by-batch or random sampling inspection, if the quantity does not exceed five tyres, and the products are intended for use by relevant government agencies with supporting documentation provided, and if a sampling inspection certificate for the same specification issued within the past year is submitted, the BSMI may, upon review and approval, limit the inspection to checking dimensions, appearance, labeling stated in the inspection standard, and the items specified in Clauses 4(3) and 4(4).

(5) For batches not selected for batch-by-batch or random sampling inspection as

mentioned in the preceding paragraph, sampling and inspection shall be conducted in accordance with the following principles and include the inspection items specified in the preceding Clause:

a. Same application involving the same brand: for 10 or fewer product items, randomly select 1 item; for 11 to 20 product items, randomly select 2 items; for more than 20 product items, randomly select 3 items. A maximum of 3 product items shall be selected.

b. Same application involving two or more brands: one product item shall be randomly selected for each brand. If there are two brands and more than 11 product items in total, one additional product item shall be randomly selected.

c. In principle, products shall be sampled from the items with the largest quantity of products. Two tires shall be sampled from the same product item: one shall be sealed and handed over to the applicant for safekeeping, and the other shall be used for testing. Starting from 1 July 2026, if the sampled product item includes passenger car tyres (C1 tyres) or light commercial vehicle tyres (C2 tyres), an additional two tyres shall be sampled: one for sealing and safekeeping by the applicant, and one for use in monitoring plan.

(6) For batches not selected in random sampling inspection, a 50% random sampling rate shall be applied to check the appearance, labeling required by the inspection standards, and the items specified in Clauses 4(3) and 4(4). Batches not selected will be subject to documentary review. The principles and quantities for checking the selected batches are as follows:

a. Inspection principle: for 10 or fewer product items, randomly select 1 item; for 11 to 20 product items, randomly select 2 items; for more than 20 product items, randomly select 3 items. A maximum of 3 product items shall be selected.

b. Quantity of samples: One sample shall be taken from each selected line item..

(7) For products that fail inspection, the following procedures shall apply:

a. The applicant’s subsequent submissions of products under the same C.C.C. Code shall be subject to batch-by-batch inspection, and inspections shall be conducted in accordance with Clause 5(3).

b. Products under the same C.C.C. Code, brand, and place of origin as those that failed inspection must undergo three consecutive batch-by-batch inspections.

c. For re-inspection cases of previously non-compliant products, the sampling for product items shall be doubled according to the provisions in Clause 5(5)a and 5(5)b. However, the specific product item that previously failed inspection must be mandatorily selected for inspection after improvement.

(8) Inspection period for batches selected under monitoring inspection: ten working days from the date the samples are received.

(9) Starting from 1 July 2026, the BSMI shall establish a monitoring plan, with the

following details:

a. Inspection items to be monitored: testing of “wet grip braking performance“ or “rolling resistance coefficient” and verification of the markings of tyre performance grades.

b. Testing laboratory: BSMI-designated testing laboratories.

c. Period of inspection: ten working days.

d. Actions to be taken if non-compliance is found in monitoring results: the applicant’s subsequent submissions of products under the same C.C.C. Code, brand, and place of origin shall be subject to batch-by-batch inspection, and must include at least one of the two tests: "wet grip" or "rolling resistance." If the products pass inspection for three consecutive batches, monitoring inspection may be resumed.

6. Principles of type test and registration of product certification:

(1) Determination of types and certificate registration:

a. Tyres from the same manufacturing site and with the same C.C.C. Code shall be considered the same type.

b. Radial ply tyres: for the same type, one aspect ratio from a specific category (purpose and nominal dimension) shall be designated as the main type, while other categories and aspect ratios shall be considered series of types. Each nominal dimension (including load index and speed rating) shall be registered.

c. Bias ply tyres:

(a) For tires used on light trucks, ultra-light trucks, trucks, and buses of the same type, one nominal rim diameter from a specific category (purpose and nominal dimension) shall be designated as the main type, while other categories and nominal rim diameters shall be considered series of types. Each nominal dimension (including ply rating or load index and speed rating) shall be registered. Starting from 1 July 2026, each tread pattern of light commercial vehicle tyres (C2 tyres, such as light and ultra- light trucks) shall also be registered.

(b) Passenger car tyres and temporary-use spare tyres shall follow the provisions for radial ply tyres.

d. The registration of tread pattern is not required for heavy-duty commercial vehicles tyres (C3 tyres), temporary-use spare tyres, T-type temporary-use spare tyres, studded tyres and professional off-road tyres.

(2) Determination of types and certification registration:

a. Tyres with the same structure and manufacturing site shall be considered as the same type.

b. Within the same type, one nominal aspect ratio or nominal rim diameters for

a specific intended use shall be designated as the main type. Other nominal aspect ratios or nominal rim diameters for different intended purposes under the same type shall be classified as series of types. Each nominal dimension (including load index and speed rating) shall be registered.

(3) Requirements for type test:

a. Automobile tyres shall undergo all test items in accordance with CNS 1431, and motorcycle tyres shall undergo all test items in accordance with CNS 4879. The test items of “dimension measurement,” “high speed performance,” “endurance,” “bead unseating resistance,” “tyre strength,” “flat tyre running mode test,” “centrifugal growth performance” (hereinafter referred to as basic items) as well as the energy efficiency items, shall be conducted by designated testing laboratories recognized by the BSMI for each respective item.

b. Sampling principles for type test:

(a) Basic items: For the main type and each series of type, one nominal rim diameter shall be selected for full testing of all basic items. The sampling shall be based on the tyre with the highest speed rating, highest load index, or largest dimension. For products bearing the CNS Mark, one sample shall be selected from the main type and each series of type for full testing of all basic items, following the same sampling principles as above.

(b) Energy efficiency items: for passenger car tires (C1 tyres) and light commercial vehicle tires (C2 tyres) of the same brand (including those from different manufacturing sites), one product per tread pattern model shall be selected for full testing of all energy efficiency items. For "rolling sound emission," the sample shall be selected based on the widest section width, smallest aspect ratio, and largest nominal rim diameter. For "wet grip braking performance," the sample shall be selected based on the narrowest section width, largest aspect ratio, and smallest nominal rim diameter. For "rolling resistance coefficient", the sample shall be selected based on the lowest load index and standard load. If a tread pattern includes both a main pattern and sub-patterns, only the main pattern needs to be tested. However, all tread pattern shall be listed in the technical documents, including illustrations of the tread design.

c. The required technical documents for type testing are as follows:

(a) Product structure diagram (including external appearance and internal structure).

(b) List of product component and materials.

(c) Color photographs (3”X5” inches or larger) of finished tyres for each registered nominal dimension (including ply rating or load index and speed rating).

(d) Summary of the manufacturing process.

(e) Samples of Chinese label.

(f) Product type classification table for basic items (Appendix 1).

(g) For those undergoing energy efficiency testing, an additional 3×5 inch or larger color photo of the tread pattern for each sampled finished tyre must be provided, along with the product type classification table for energy efficiency items. (Appendix 2).

d. Number of samples:

(a) Basic items: a total of three tyres are required for testing “dimension measurement,” “high speed performance,” “endurance,” “bead unseating resistance” and “tyre strength.” One tyre is required for “flat tyre running mode test” and one tyre for “centrifugal growth performance.”

(b) Energy efficiency items: four tyres are required for “rolling sound emission,” one tyre for “wet grip braking performance,“ and one tyre for “rolling resistance coefficient.”

e. Data referencing for energy efficiency items: For tyres with the same tread pattern and same manufacturing site (including different brands), or with the same tread pattern and same brand, the energy efficiency data from a type test report may be referenced with the consent of the original report holder. In such cases, the applicant must submit the consent document, sample, and the information specified in Clause 6(3)3 to the designated testing laboratory recognized by the BSMI that issued the original report for review. If the sample and documentation are confirmed to match the tyre from the original type test report, and the same inspection standards and version apply, the original test data may be referenced, and a new type test report may be issued. However, data from the original type test report may not be referenced under the following circumstances:

(a) If any conditions specified in Article 4-2 of “Regulations Governing Registration of Product Certification” apply.

(b) If the original report itself contains referenced data from another type test report.

(4) Tyre manufacturers that have obtained the CNS Mark may, when applying for type testing, request the testing laboratories to conduct on-site testing at the manufacturing facility.

(5) If the issuance date of the CNS Mark test report is within one year prior to the application for registration, and the test specifications and sampling principles are consistent with those required for type testing, the report may be used in place of a type test report. However, one CNS Mark inspection report may only be used to replace the type test report for one main type or one series type.

(6) If there is any change to the scope of the registration of product certification certificate, the applicant must apply for an amendment to the type test report

with the original testing laboratories based on the following principles, and apply to the inspection authority for reissuance of the certificate:

a. If a new series of type is added and the product to be added has a higher speed rating, heavier load index, or larger size than the original test sample, a full type test of all basic items must be conducted.

b. Starting from 1 July 2026, if a new tread pattern is added and (1) it has a wider section width, lower aspect ratio, and larger nominal rim diameter than the original sample, a type test for “rolling sound emission” shall be conducted; (2) the product has a narrower section width, higher aspect ratio, and smaller nominal rim diameter, a type test for “wet grip braking performance” shall be conducted; (3) the product has a lower load index than the original sample, a type test for “rolling resistance coefficient” shall be conducted.

c. For the addition of products not covered in the above two clauses, a scope amendment to the type test report must be processed.

Appendix 1

Type Classification Table of Products

[Applicable to Basic Items]

Applicant: Date of Application: (MM/DD/YYYY)

Contact Person: Tel:

Email/Fax:

Address:

1. Type Classification:
   (1) C.C.C Code:
   (2) Chinese Name:
   (3) English Name:
   (4) Product Name:
   (5) Production Premise and Country:
   (6) Main Type:
      A. Category:
      B. Structure:
      C. Aspect ratio:
      D. Nominal dimension (including load index and speed rating):
      E. Main Materials:
   (7) Series of Type:
2. Checklist of Technical Documents (three copies of each document listed below shall be provided for the products submitted for type test).
   (1) ☐ Product structure diagram (including external appearance and internal structure).
   (2) ☐ List of component and materials.
   (3) ☐ Color photographs (3”X5” inches or larger) or digital files, for each registered tyres of nominal dimension (including ply rating or load index and speed rating).
   (4) ☐ Summary of manufacturing process.
   (5) ☐ Samples of Chinese label.
   (6) ☐ Samples: a total of three tyres are required for testing “dimension measurement,” “high speed performance,” “endurance,” “bead unseating resistance” and “tyre strength.” One tyre is required for “flat tyre running mode test” and one tyre for “centrifugal growth performance.” (When necessary, the testing laboratory may request the applicant to provide additional samples.)

Appendix 2

Type Classification Table of Products

[Applicable to Energy Efficiency Items]

Applicant: Date of Application: (MM/DD/YYYY)

Contact Person: Tel:

Email/Fax:

Address:

1. Type Classification:
   (1) C.C.C Code:
   (2) Chinese Name:
   (3) English Name:
   (4) Product Name:
   (5) Production Premise and Country:
   (6) Main Type:
      A. Category:
      B. Aspect ratio:
      C. Nominal dimension (including load index, speed rating and load classification):

      D. Tread pattern:
   (7) Series of Type:
2. Checklist of Technical Documents (three copies of each document listed below shall be provided for the products submitted for type test).
   (1) ☐ Product specification list [including major/minor tread patterns, aspect ratio, nominal dimension (including ply rating or load index and speed rating), and load classification].
   (2) ☐ Color photographs (3”X5” inches or larger) or digital files, for each registered tread pattern of each sampled tyre.
   (3) ☐ Samples of Chinese label.
   (4) ☐ Samples: four tyres for testing “rolling sound emission,” one tyre for “wet grip braking performance,” and one tyre for “rolling resistance coefficient.” (When necessary, the testing laboratory may request the applicant to provide additional samples.)