Submitted by the expert of the European Association of the Automotive Suppliers (CLEPA)

Informal Document GRPE 93-13
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Provisional Agenda item 7.(a)

# Proposal for a new UN Regulation No. [XXX] on the Laboratory Measurement of non-original and identical replacement brake parts with regards to particle emissions

The text reproduced below was prepared by the experts from the European Association of the Automotive Suppliers (CLEPA). This document aims at transposing UN GTR No. 24 into a new UN Regulation on uniform provisions concerning the approval of non-original and identical replacement brake parts with regards to particle emissions.

Comments on sections still to be discussed are included in the text in red colour.

CLEPA aims at submitting a working document to the 94th session of GRPE in March 2026.

# Contents

# I. Proposal

## 1. Scope

This Regulation applies to the laboratory measurement of brake emission of non-original replacement brake pad, non-original replacement drum brake lining, non-original replacement brake disc, non-original replacement brake drum and identical brake parts intended for use in friction brakes forming part of a braking system of vehicles of category M1, N1 and N2 between 3,5 and 5 tonnes maximum mass originating from a type of vehicle of category N1 which have a type approval in accordance with Regulation No. [xx – Brake Emissions for OE parts].

# 2. Definitions

2.1 "*Test wheel load*" means the (equivalent) rotating mass as a function of the total vehicle test mass, the axle under test (front or rear), and the brake work distribution among the two axles. It represents the load at the brake corner under testing after accounting for vehicle road loads. Also referred to as *"Applied wheel load"*.

2.2 "*Brake assembly*" in the case of disc brakes means the set of matching brake discs, brake pads, brake calliper, and associated hardware (to mount, secure, and connect the brake assembly onto the brake fixture and the dynamometer) for a given vehicle and axle application. In the case of drum brakes, the hardware set comprises the brake drum, brake shoes, backplate assembly, and associated hardware used (to mount, secure, and connect the brake assembly to the brake fixture and the dynamometer) for a given vehicle and axle application. The brake assembly mounts on a brake fixture to adapt and connect to the brake dynamometer.

2.3 "*Full-friction brake*" means a service brake mounted on a vehicle that uses only the friction between a brake disc or drum and the mating friction materials.

2.4 "*Brake calliper*" means a mechanical device that converts driver brake pedal input into a clamping force on the brake pads to generate braking torque.

2.5 "*Brake disc*" means a rotating, wearable device against which the brake calliper clamps the brake pads in a disc brake assembly. This device acts as the primary heat absorption and dissipation device, as the brake corner transforms vehicle kinetic energy into heat.

2.6 "*Cast-iron disc*" means a brake disc manufactured of grey cast iron and having a carbon content between 2.8 per cent and 4.0 per cent.

2.7 "*Cast-iron coated disc*" means a brake disc manufactured of a grey cast iron base body and whose friction ring is coated with an abrasion-resistant material.

2.8 "*Carbon-ceramic disc*" means a brake disc manufactured of a carbon fibre reinforced ceramic matrix material with or without a ceramic friction layer.

2.9 "*Brake pad*" means a wearable device that mounts onto the brake calliper consisting of a structural (metal) pressure plate and a friction material element. The brake pads clamp against the brake disc, generating a retarding friction force and thus the brake torque.

2.10 "*Brake drum*" means a rotating, wearable mechanism against which the brake wheel cylinder clamps the brake shoes in a drum brake assembly. This device acts as the primary heat absorption and dissipation device, as the brake corner translates vehicle kinetic energy into heat.

2.11 "*Brake shoe*" means a wearable device consisting of an arced structural metal shoe and a (bonded or riveted) friction material. The brake shoe is clamped against the drum to generate friction and thus brake torque. Also referred to as "*Drum brake lining*"

2.12 "*Friction material identification code*" means the unique code which, at a minimum, includes the pad/shoe manufacturer’s trade name or trade mark, and an identification number that relates uniquely to the friction material formulation.

2.13 "*Disc or drum identification code*" means the unique code labelled by the manufacturer to identify the specific disc or drum

2.14 "*Original brake parts*" means either an original brake pad, an original brake pad assembly, an original drum brake lining, an original brake drum or an original brake disc.

2.15 "*Original brake pad*" means a brake pad type referenced in the vehicle type approval documentation according to UN Regulation No. 13, UN Regulation No.13-H, or UN Regulation No. 78.

2.16 "*Original drum brake lining*" means a drum brake lining conforming to the data attached to a vehicle type approval documentation.

2.17 "*Original brake disc*" means a brake disc covered by the vehicle braking system type approval according to UN Regulation No. 13, UN Regulation No.13-H, or UN Regulation No. 78.

2.18 "*Original brake drum*" means a brake drum covered by the vehicle braking system type approval according to UN Regulation No. 13, UN Regulation No.13-H, or UN Regulation No. 78.

2.19 "*Identical brake parts*" means either an identical brake pad, an identical drum brake lining, an identical brake drum or an identical brake disc.

2.20 "*Identical brake pad*" is a replacement brake pad which is chemically and physically identical to the original brake pad in every respect except for the vehicle manufacturer mark which is absent.

2.21 "*Identical drum brake lining*" is a replacement drum brake lining identical to the drum brake lining supplied and fitted as original equipment and included in the vehicle type approval to UN Regulation No. 13 or UN Regulation No. 13-H, except for the vehicle/brake assembly manufacturers' mark, which is omitted.

2.22 "*Identical brake disc*" is a replacement brake disc which is chemically and physically identical to the original brake disc in every respect except for the vehicle manufacturer mark, which is absent.

2.23 "*Identical brake drum*" is a replacement brake drum which is chemically and physically identical to the original brake disc in every respect except for the vehicle manufacturer mark, which is absent.

2.24 "*Replacement brake parts*" means either a replacement brake pad assembly type, a replacement drum brake lining type, a replacement brake drum, or a replacement brake disc.

2.25 "*Original replacement brake pad*" means an original brake pad intended for servicing the vehicle and carrying an identification code affixed in such a way as to be indelible and clearly legible.

2.26 "*Non-original replacement brake pad*" means a brake pad of a type approved under UN Regulation No. 90 as a suitable service replacement for an original brake pad.

2.27 "*Original replacement drum brake lining*" means an original brake drum lining intended for servicing the vehicle and carrying an identification code affixed in such a way as to be indelible and clearly legible.

2.28 "*Non-original replacement drum brake lining*" means a brake drum lining of a type approved under UN Regulation No. 90 as a suitable service replacement for an original brake drum lining.

2.29 "*Original replacement brake disc*" means an original brake disc intended for servicing the vehicle and carrying an identification code affixed in such a way as to be indelible and clearly legible.

2.30 "*Non-original replacement brake disc*" means a brake disc of a type approved under UN Regulation No. 90 as a suitable service replacement for an original brake disc.

2.31 "*Original replacement brake drum*" means an original brake drum intended for servicing the vehicle and carrying an identification code affixed in such a way as to be indelible and clearly legible.

2.32 "*Non-original replacement brake drum*" means a brake drum of a type approved under UN Regulation No. 90 as a suitable service replacement for an original brake drum.

2.33 "*Identification code*" identifies the brake discs or brake drums covered by the braking system approval according to UN Regulation No. 13 and UN Regulation No. 13-H. It contains at least the manufacturer's trade name or trademark and an identification number.

2.34 "*Brake emissions test*" means a sequence of three sections (cooling air adjustment, brake bedding, and brake emissions measurement) to characterise the particle emissions of the brake under testing.

2.35 "*Brake emissions measurement*" means the section of the brake emissions test where PM and PN emissions are sampled and measured. Also referred to as the "*Emissions measurement section*".

2.36 The term "*particle*" is conventionally used for the matter being characterised (measured) in the airborne phase (suspended matter), and the term "particulate matter" for the deposited matter.

2.37 "*Particle number emissions*" means the number of particles emitted from the brake under testing and quantified according to the dilution, sampling, and measurement methods specified in this UN Regulation.

2.38 "*Total particle number emissions*" means the number of total particles (i.e. solids and volatiles) emitted from the brake under testing.

2.39 "*TPN10*" means the number of total particles (i.e. solids and volatiles) at a nominal particle size of approximately 10 nm electrical mobility diameter and larger emitted from the brake under testing and quantified according to the dilution, sampling, and measurement methods specified in this UN Regulation.

2.40 "*Solid particle number emissions*" means the number of solid particles emitted from the brake under testing.

2.41 "*SPN10*" means the number of solid particles at a nominal particle size of approximately 10 nm electrical mobility diameter and larger emitted from the brake under testing and quantified according to the dilution, sampling, and measurement methods specified in this UN Regulation.

2.42 "*Particulate matter (PM) emissions*" means the mass of any particle from the brake under testing quantified according to the dilution, sampling, and measurement methods specified in this UN Regulation.

2.43 "$PM_{2.5}$ *emissions*" means the PM with an aerodynamic diameter of approximately 2.5 µm or less.

2.44 "$PM_{10}$ *emissions*" means the PM with an aerodynamic diameter of approximately 10 µm or less.

2.45 "*Friction braking*" in the context of this UN Regulation means the decelerating of the vehicle by using the friction braking system where the brake forces are generated by friction between two parts of the vehicle moving relative to one another.

2.46 "*Non-friction braking*" in the context of this UN Regulation means the decelerating of the vehicle also by different technical means without using solely the friction braking system, e.g. such as regenerative braking. It applies to pure electric vehicles and hybrid electric vehicles with a traction REESS nominal voltage greater than 12V.

2.47 "*Full-friction braking*" in the context of this UN Regulation means the decelerating of the vehicle by using only a full-friction brake system.

2.48 "*Brake Emissions Family Parent*" is a single vehicle selected among a family of two or more vehicles equipped with the same brake system.

2.49 "*Friction braking share coefficient*" is the ratio of total energy absorbed by the full friction brake system during a drive cycle, to the total kinetic energy variation of the vehicle during braking events (excluding road loads) over the same drive cycle.

# 3. Application for Approval

3.1 An application for approval of a replacement brake part for (a) specific vehicle type(s) shall be submitted by the manufacturer of the replacement brake part or his duly accredited representative.

3.2. An application for approval shall be accompanied, in triplicate, by a description of the replacement brake part with regard to the items specified in Annex 1 to this Regulation, and by the following particulars:

3.2.1 Diagrams showing functional dimensions of the replacement brake part;

3.2.2 An indication of the positions of the replacement brake part on the vehicles for which approval to fit is sought.

3.3. Replacement brake part of the type for which approval is sought shall be made available in sufficient quantity to perform the approval tests.

3.4. The applicant shall agree with and make available to the technical service responsible for conducting approval tests the suitable representative brake

3.5. The Competent Authority shall verify the existence of satisfactory arrangements for ensuring effective control of the conformity of production before type approval is granted.

# 4. Approval

4.1 If the replacement part submitted for approval pursuant to this Regulation meet the requirements of paragraph 5. below, approval of the replacement part shall be granted.

4.2 To each replacement brake part approved there shall be assigned an approval code and an approval number, the latter in the format according to Schedule 4 to the Revision 3 of the 1958 Agreement. The approval code shall comprise four groups of digits:

4.2.1 The first two digits (at present 00 for the Regulation in its original series of amendments) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval.

4.2.2. The following single digit shall indicate the category of the replacement brake part as follows:

A = Non – Original Replacement/ Identical brake pad

B = Non – Original Replacement/Identical brake shoe and lining

C = Non – Original Replacement/Identical brake disc

D = Non – Original Replacement/Identical brake drum

4.2.3. The next series of digits shall indicate -

• the Friction Material Identification Code

or

• the Disc/Drum Identification Code

4.2.4 The digital suffix shall indicate the Family Test Group to which the parts belong

Example

01/A/XXXX/13a

01 = series amendment

A = Non – Original Replacement Disc Brake Pad

XXXX = Friction Material Identification Code

13a = Family Test Group

4.2.5 The variants approved within the Family Test Group shall be listed as an appendix to the communication document

4.2.6 The same Contracting Party may not assign the same approval code and/or the same approval number to a replacement brake part of a different type. The same type approval number and approval code may cover the use of that replacement brake part on a number of differing vehicle types.

4.2.7. Notice of approval or of extension or refusal of approval or withdrawal of approval or production definitively discontinued of a replacement brake part pursuant to this Regulation shall be communicated to the Parties to the 1958 Agreement which apply this Regulation by means of a form conforming to the model in Annex 1 to this Regulation.

4.2.8 Upon request of the applicant for the approval of the replacement brake part, the approval authority shall make available on a non-discriminatory basis, the information referred to in items [xx] of the information document contained in Annex I to Regulation No. [xx – Brake Emission for OE parts]

The information needed for which the correct references in paragraph 4.2.8 have to be included are

1. Vehicle Test Mass → **Annex I, Appendix I, Brake Corner Emission Family Test Report**
2. Tyre dynamic rolling radius → **Annex I, Appendix I, Brake Corner Emission Family Test Report**
3. PM emission levels by axle before and after the application of the braking share coefficient → **Annex I, Appendix 3, point 2.2.2 and 2.2.3, Whole Vehicle Brake Emission Family Report**
4. Identification of the friction couple, tested , approved and fitted on the vehicle production line, specifically -
    a) Friction Material Identification code → **Annex I, Appendix I, Brake Corner Emission Family Test Report**
    b) Material formulation of friction surface(s) (e.g. material code), Coating (yes/no), Type of coating (e.g. Type of Hard Coating) → **Points from 8.13.2.5.1. to 8.13.2.5.2. of Annex 1, Information Document**
    c) Material formulation of drum(s) (e.g. material code) → **Point 8.13.3.6.1. of Annex 1, Information Document**
5. Information if a vacuum pump/filter is fitted & if so its make and type → **[Placeholder]**
6. Construction of calliper(s) (floating or fixed) → **Point 8.13.2.6.2. of Annex 1, Information Document**
7. Disc braking surface form – plain or not plain (e.g. drilled/slotted) → Still to be seen

4.2.9 There shall be affixed, conspicuously and in a readily accessible place, to every replacement brake part approved under this Regulation, an international approval mark consisting of:

• A circle surrounding the letter "E" followed by the distinguishing number of the country which has granted approval ;

• The number of this Regulation, followed by the letter "R",

a dash and the approval code to the right of the circle prescribed

4.2.10 [By way of exemption from paragraph 4.1.8, where a lining assembly is approved to both UN Regulation No. 90 and this Regulation, if there is insufficient space to include both approval markings at the specific size, the approval mark may consist of:

- A truncated circle surrounding the letter "E" followed by the distinguishing number of the country which has granted approval;
- The approval code to the right of the circle prescribed

The dimension ‘a’ may be reduced providing the approval marking remains legible. ‘a’ shall only be reduced as much as necessary, and shall in no case be less than [2,5] mm]

Simplification of the approval code and possible modalities need to be discussed and detailed more

4.2.11 The approval mark shall be clearly legible and be indelible.

4.2.12 The approval markings required by this Regulation may not be replaced by a Unique Identifier (UI) described in Schedule 5 to the 1958 Agreement.

# 5. Specifications and Tests

5.1 Brake Emissions approval tests for Non – Original or Identical Replacement brake parts (brake pads/linings, brake discs/drums) shall be carried out in accordance with UN GTR24

5.2 Non – original brake parts for test shall be assigned to the appropriate Brake Emissions Family as defined in UN GTR24 para 5.2.2 & Tables 5.1 & 5.2.

5.3 The Brake Emissions Family Parent for each Family is determined in accordance with UN GTR24 para 5.2.3

5.4 [A Non – Original or Identical Replacement Brake Pad/Lining may be approved with an Original Brake Disc/Drum as the counterpart or with a Non – Original Replacement Brake Disc/Drum type approved according to this Regulation as the counterpart

5.5 A Non – Original or Identical Replacement Brake Disc/Drum may be approved with an Original Brake Pad/Lining as the counterpart or with a Non – Original Replacement Brake Pad/Lining type approved according to this Regulations the counterpart]

<table>
<tr><th></th><th colspan="2">Friction Couple</th></tr>
<tr><th>Part/parts to be tested</th><th>Brake pad/Lining</th><th>Brake Disc/Drum</th></tr>
<tr><td rowspan="2">Non-Original or Identical replacement brake pad/lining</td><td rowspan="2">Non-Original or Identical replacement brake pad/lining</td><td>Original Brake Disc/Drum</td></tr>
<tr><td>Non – Original or Identical homologated Replacement Brake Disc/Drum</td></tr>
<tr><td rowspan="2">Non-Original or Identical replacement brake disc/drum</td><td>Original Brake Pad/Lining</td><td rowspan="2">Non-Original or Identical replacement brake disc/drum</td></tr>
<tr><td>Non – Original or Identical homologated Replacement Brake Pad/Lining</td></tr>
<tr><td>Non-Original or Identical replacement brake couple (brake pad + brake disc or brake lining + drum)</td><td>Non – Original or Identical Replacement Brake Pad/Lining</td><td>Non – Original or Identical Replacement Brake Disc/Drum</td></tr>
</table>

5.6 Brake Emissions Family Testing

5.6.1 The selected brake assembly shall be tested on the test stand using the test wheel load corresponding to the brake emissions family parent as described in [Reference UNR xx - Brake Emissions for OE parts] -

5.6.2 The test wheel load that corresponds to the brake emissions family parent as described in paragraphs [Reference UNR xx - Brake Emissions for OE parts] shall be applied. At the request of the applicant the test wheel load may be increased by up to 10% to allow for uncertainty in wheel loads and C – factor

5.6.3 The final brake PM and PN emission factors for the brake emissions family parent are calculated after multiplying the reference PM and PN emissions of the tested brake (as described in paragraphs 12.1.5. and 12.2.4. of UN GTR24) with the C value from Table 5.3 of UN GTR24 of the brake emissions family parent vehicle

5.6.4 The emission values for other replacement brake parts for the corresponding axles of other vehicles within the same Family Test Group may be derived

from the emissions test value obtained with the Family Parent by means of the following fomula

PMx = PMparent *(WLx/WLparent) * Cx

Where

• PM parent = emission value obtained with the emissions test with the brake from the Family Group Parent

• WLx = wheel load of the subject vehicle

• WL parent = wheel load of the Family Group Parent

• Cx = Friction Share Braking Coefficient (from UNGTR24 Table 5.3) for the subject vehicle

5.7 Rounding Requirements

5.7.1 All data must be processed using at least six significant digits. If fewer significant digits are available, data must be processed using all available significant digits. Rounding of intermediate results is not permitted. The final values for a given parameter may be rounded to the number of significant digits necessary to match the number of decimal places defined for the parameter in paragraph 13. of UN GTR24.

5.8 [Approval

5.8.1 The maximum permitted PM10 emission is

2.5 mg/km/front brake (5 mg/km per front axle) and 1mg/km/rear brake (2 mg/km per rear axle), prior to the application of the relevant friction brake share coefficient for the vehicle type

5.8.2 However, for vehicles with C Factors from UN GTR24 Table 5.3 ≤ 0.52 maximum values of 5 mg/km/front brake (10 mg/km per front axle) and 1.5 mg/km/rear brake (3 mg/km per rear axle) prior to the application of the friction brake share coefficient for the vehicle type are permitted

Note: Notwithstanding the primary fixed-limit method for obtaining approval, the manufacturer has the option to perform comparative back-to-back emissions tests with OEM Type Approved products if deemed necessary as an alternative approach to gaining approval.]

Back-to-back emissions tests definition need to be discussed further

# 6. Packaging and Marking

6.1 Whether the replacement brake part has already a type-approval issued by another UN Regulation, the following information in this paragraph should not be duplicated in the packaging

6.2. Each package shall display the following information:

6.2.1 Manufacturer's name or trade mark;

6.2.2. Friction Material Identification Code or Disc/Drum Identification Code and Emissions Family Test Group Number

6.2.3. The vehicles/axles/brakes for which the contents are approved;

6.2.4. The approval mark.

6.3. Each replacement brake part shall display permanently one set of approval data:

6.3.1. The approval mark;

6.3.2. Friction Material Identification Code or Disc/Drum Identification Code and Emissions Family Test Group Number

# 7. Modifications and Extension of Approval of Replacement Brake Parts

7.1 Every modification of the replacement brake part shall be notified to the Type Approval Authority which granted the type approval. The department may then either:

7.1.1. Consider that the modifications made are unlikely to have appreciable adverse effects and that in any event the replacement brake part still complies with the requirements; or

7.1.2. Require a further test report from the technical service responsible for conducting the tests.

7.2. Confirmation or refusal of approval, specifying the alterations, shall be notified by the procedure specified in paragraph 4.1.7. above to the Parties to the 1958 Agreement applying this Regulation.

7.3. The Competent Authority issuing the extension of approval shall assign a series number for such an extension and inform thereof the other Parties to the 1958 Agreement applying this Regulation by means of a communication form conforming to the model in Annex 1 to this Regulation.

# 8. Conformity of Production

8.1 Replacement brake parts approved to this Regulation shall be so manufactured as to conform to the type approved.

8.2 To verify that the requirements of paragraph 8.1. are met, suitable controls of the production shall be applied. These shall encompass the control of raw materials and components used.

8.3 The holder of an approval shall in particular:

8.3.1 Ensure that for each non – original replacement brake pad/lining at least the friction tests prescribed in UNR90:02 Annex 9 to this Regulation are carried out on a statistically controlled and random basis in accordance with a regular quality assurance procedure.

8.3.2 Ensure that for each non - original replacement Grey Cast Iron brake disc/drum at least the tests prescribed in UNR90:02 Annex 9/Part B to this Regulation are carried out on a statistically controlled and random basis in accordance with a regular quality assurance procedure.

8.3.3 Ensure that for each non - original replacement Hard Coated Grey Cast Iron brake disc/drum [need a corresponding procedure (Part C) for coated discs and (Part D) for CSi discs for R90 and for reference in this UNR]

8.3.4 Ensure that for each non - original replacement Carbon Ceramic brake disc/drum [need a corresponding procedure (Part C) for coated discs and (Part D) for CSi discs for R90 and for reference in this UNR]

8.3.5 Ensure existence of procedures for the effective control of the quality of products such as ISO9001:2015 or IATF16949

8.3.6. Have access to the control equipment necessary for checking the conformity of each approved type;

8.3.7. Analyse the results of each type of test in order to verify and ensure the consistency of the product characteristics, making allowance for variation of an industrial production;

8.3.8 Ensure that data of test results are recorded and that annexed documents remain available for a period to be determined in agreement with the administrative service;

8.3.9. Ensure that any samples or test pieces giving evidence of non-conformity with the type of test considered shall give rise to another sampling and another test. All the necessary steps shall be taken to re-establish the conformity of the corresponding production.

8.4. The Competent Authority which has granted type-approval may at any time verify the conformity control methods applicable to each production unit.

8.4.1. In every inspection, the test books and production survey records shall be presented to the visiting inspector.

8.4.2. The inspector may take samples at random to be tested in the manufacturer's laboratory. The minimum number of samples may be determined according to the results of the manufacturer's own verification.

8.4.3. When the quality level appears unsatisfactory or when it seems necessary to verify the validity of the tests carried out in application of paragraph 8.4.2. the inspector shall select samples to be sent to the technical service which has conducted the type approval tests.

8.4.4. The competent authority may carry out any tests prescribed in this Regulation.

8.4.5. The normal frequency of inspections authorized by the Competent Authority shall be one per year. In the case where negative results are recorded during

one of these visits, the competent authority shall ensure that all necessary steps are taken to re-establish the conformity of production as rapidly as possible.

[8.4.6 Confirmation Emissions Test: on an annual basis conduct a confirmation test for brake emissions in accordance with UN GTR24 on a reference brake assembly of the manufacturers choosing for each type of friction material in series production. The result should be in compliance with the maximum limits specified in Section 5 of this Regulation for the axle concerned]

# 9. Penalties for non-conformity of Production

9.1 The approval granted in respect of a replacement brake lining assembly type or drum brake lining type pursuant to this Regulation may be withdrawn if the requirements laid down in paragraph 8.1. above are not complied with.

The approval granted in respect of the type of a replacement brake drum or a replacement brake disc pursuant to this Regulation may be withdrawn if the requirements laid down in paragraph 8.1. above are not complied with.

9.2. If a Contracting Party to the Agreement applying this Regulation withdraws an approval it has previously granted, it shall forthwith so notify the other Contracting Parties applying this Regulation, by means of a communication form conforming to the model in Annex 1A or Annex 1B to this Regulation.

## 10. Production Definitively Discontinued

If the holder of the approval completely ceases to manufacture a replacement brake part approved in accordance with this Regulation, he shall so inform the authority which granted the approval. Upon receiving the relevant communication that authority shall inform thereof the other Parties to the 1958 Agreement applying this Regulation by means of a communication form conforming to the model in Annex 1A to this Regulation.

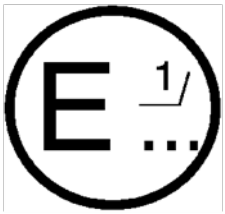
## 11. Names and Addresses of Technical Services Responsible for Conducting Approval Tests, and of Type Approval Authorities

11.1 [Reserved]

# Annex 1A

# Communication

(Maximum format: A4 (210 x 297 mm))




issued by: Name of administration:
.....
.....
.....

Concerning: Approval granted
Approval extended
Approval refused
Approval withdrawn
Production definitively discontinued

of a Non –Original Replacement brake pad/ brake shoe & lining/brake disc/brake drum pursuant to UN Regulation No. XX

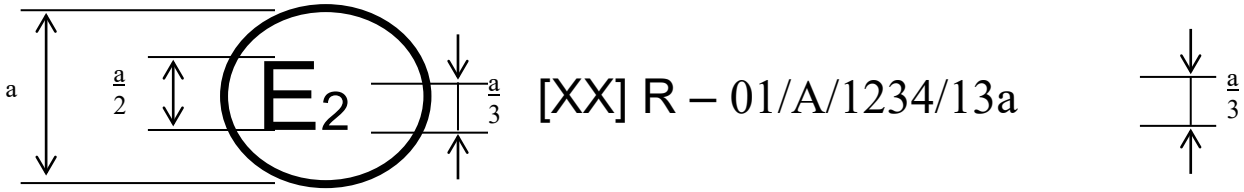
Approval Code ..... Extension No .....

1. Applicant's name and address .....
2. Manufacturer's name and address .....
3. Friction Material Part No .....
4. Disc/Drum Part No .....
5. Emissions Family Test Group No .....
6. Vehicles/axles/brakes for which the replacement brake part qualifies .....
7. Submitted for approval on .....
8. Technical service responsible for approval tests .....
8.1. Date of test report .....
8.2. Number of test report .....
9. Approval granted/extended/refused/withdrawn .....
10. Place .....
11. Date .....
12. Signature .....
13. Annexed to this communication is a list of documents in the approval file deposited at the Type Approval Authorities having delivered the approval and which can be obtained upon request .....

## Annex 2

## Arrangements of Approval Mark and Approval Data

(see paragraph [xx] of this Regulation)




The above approval mark shows that the item concerned has been approved in France (E2) pursuant to Regulation No. [xx] under approval number A/1234/13a. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of Regulation No. [xx] as amended by the 01 series.

(see paragraph [xx] of this Regulation)

TO BE ADDED APPROPRIATE PICTURE OF THE SIMPLIFIED MARKING APPROACH

## II. Justification

1. REGULATION (EU) 2024/1257 (Euro 7) mandates the measurement and the limitation of brake particle emissions (PM10)
2. UN GTR No. 24 aims to harmonise test procedures for brake particle emissions from Light-Duty Vehicles (LDV)
3. GRPE PMP IWG agreed to transpose the UN GTR No. 24 provisions in two separate UN Regulations, one concerning Original Equipment and Original Replacement Brake Parts, in the text referred as UN Regulation No. [xx - Brake Emissions for OE parts], and another concerning non-Original and Identical Brake Parts
4. Several definitions relevant for this UN Regulation are carried over from UN GTR No. 24
5. The approval number has been based on a first digit recognising the type of replacement parts, a subsequent series of digits identifying the specific friction material and manufacturer and a last series of digits identifying the family
6. Some information from the information document related to the vehicle approval shall be shared from the Type Approval Authority upon request of the applicant for the approval of non-Original or Identical Brake Parts
7. The test procedure has been directly referred and aligned to the one in UN GTR No. 24. The limit values in this proposal are allocated to the different axles depending on the C-factor
8. Conformity of Production and relative penalties are derived from those in in UN Regulation No. 90 with the addition of a confirmation test on annual basis