

Proposal for a new Supplement to the 01 and 02 Series of Amendments to UN Regulation No. 90 (Replacement braking parts)

The text reproduced below was prepared by the expert from the European Association of Automotive Suppliers (CLEPA) to resolve the problem of fulfilling increasingly difficult COP routine obligations caused by unavailability of the specifically prescribed hardware. The modifications to the existing text of the Regulation are marked in **bold** for new and strikethrough for deleted characters

I. Proposal:

Annex 9, Part A, paragraph 3.1.1. amend to read:

“3.1.1. The machine shall be equipped with a disc brake ~~of the fixed calliper type with a cylinder diameter of 60 mm and a solid (not ventilated) and~~ **corresponding** brake disc ~~having a diameter of 278 ± 2 mm and a thickness of $12 \text{ mm} \pm 0.5 \text{ mm}$.~~ **such as to allow a** A rectangular piece of the friction material with ~~an~~ **a surface** area of $44 \text{ cm}^2 \pm 0.5 \text{ cm}^2$ and a thickness of at least 6 mm ~~to shall~~ be attached to the backing **plates of the disc brake**”

II. Justification:

Annex 9, paragraph 3.1.1 of Regulation No. 90 covering COP testing for brake lining assemblies and drum brake linings for vehicles of categories M3, N2, N3, O3, and O4 currently requires the use of a very specific type and size of brake calliper and brake disc in order for the brake lining manufacturer to be able to demonstrate to the approving authority the consistency of production, batch to batch.

This type of brake calliper and corresponding brake rotor were commonly available when the regulation was first published in the early 1990's but this is no longer the case, with all major brake calliper manufacturers confirming that such brakes are no longer in series production.

The consequence is that holders of Regulation No. 90 approval around the world are finding it increasingly difficult to fulfil their routine COP obligations because they cannot any longer locate and purchase the specifically prescribed hardware in order to conduct the tests. We therefore need to update paragraph 3.1.1 to reflect the current reality and avoid any hardware constraints in future.

It is therefore proposed that we amend the regulation to remove the specific prescription as to the type and size of brake and size and form of brake disc but require the use of a pad area and thickness as originally specified, in order to provide consistency with past data.

In order to change to new hardware it is anticipated that it will be necessary for the manufacturer, in agreement with the Type Approval Authority, to conduct a new set of baseline tests with the new hardware to “re-establish/re-confirm” COP values to use as the reference data going forward.
