

Proposal for amendments to the 03 and 04 series of UN Regulation No.79 (Steering equipment)

The text reproduced below was prepared by the experts from Republic of Korea to propose new Supplement to the 03 and 04 series of amendments to UN Regulation No. 79. The modifications to the existing text of the document are marked in **bold** for new or strikethrough for deleted characters.

I. Proposal

Insert new Paragraph 6.2.5.1.1., to read:

“6.2.5.1.1. **If requested by the vehicle manufacturer, the vehicle may undergo at least 10 “figure of eight” manoeuvres, where each loop of the figure is 40m diameter at 10km/h speed with intact steering equipment, immediately before the measurement of steering efforts with a failure in the steering equipment.”**

II. Justification

1. This amendment aims to clarify the pre-test conditions for measuring steering effort under a failure condition in UN Regulation No.79. The measurement of steering effort in a failure situation is defined in paragraph 6.2.5. and is intended to ensure that, in the event of a steering system failure during driving, the driver is able to manoeuvre the vehicle to a safe position without the maximum permitted steering effort.

2. To realistically simulate a steering system failure during actual driving, the power steering oil should be in a stabilized, warmed-up condition. When the power steering oil temperature is low, which does not reflect typical driving conditions. This effect is particularly significant for heavy-duty vehicles (e.g. N3 and M3 categories), where the required steering effort can be substantially higher, leading to reduced repeatability and greater variability in test results.

3. Therefore, this amendment proposes that, upon the manufacturer’s request, the vehicle may undergo at least 10 “figure of eight” manoeuvres, as already specified in paragraph 5.3.3.3 of this Regulation, immediately prior to the measurement of steering effort with a failure in the steering equipment. These manoeuvres are intended solely to stabilize the power steering oil temperature and do not reduce the steering effort required during the failure test. The application of this optional pre-conditioning remains subject to agreement with the Technical Service and the Type Approval Authority.
