

Proposal for amendments to Regulation No. 13

Note: The text reproduced below was prepared by the experts from Germany to get an automatic adjustment of the service brakes mandatory also for trailers of class O₁ and O₂.

The modifications to the existing text of the Regulation are marked in ~~striktthrough~~ characters.

I. Proposal

Paragraph 5.2.2.8.1., amend to read (delete the second sentence):

5.2.2.8.1. "Wear adjustment shall be automatic for the service brakes. ~~However, the fitting of automatic adjustment devices is optional for vehicles of categories O₁ and O₂.~~ Brakes equipped with automatic brake adjustment devices shall, after heating followed by cooling, be capable of free running as defined in paragraph 1.7.3. of Annex 4 following the Type-I or Type-III test also defined in that annex as appropriate."

II. Justification

1. Following extensive testing, it has been proven that the stopping distance of a vehicle-trailer combination with an O₁ or O₂ trailer with well-adjusted / automatic adjusted brakes is significantly shorter than a combination with badly adjusted brakes on the trailer.
2. These shorter stopping distances are mainly a result of removing the slack in the operating system.
3. It has also been proven, that badly adjusted O₁ or O₂ trailer brakes result in harsh forces reacting on the towing device on the towing car. These forces, generated by the slack in the trailer braking system have been measured, recording forces of more than 0,6 x Dc, and are greater than the testing criteria for such towing devices. (As stated in EEC 94/20 or UN Regulation No. 55)
4. Also the performance of the trailer parking brake suffers with badly adjusted wheel brakes. When parking a trailer, the energy-store will supply enough force to apply the wheel-brakes, even if they are switching to auto-reverse. But, if there is no automatic adjustment and too much free play in the system, the force and travel available from the energy store might not be sufficient to re-apply the parking brakes.
5. Recently, electronic trailer braking systems have appeared on the market, which stabilize O₁ or O₂ trailers snaking by applying short applications of the brakes.
6. But, if the brakes are worn, there will be no braking forces and therefore no trailer stabilization.
7. Wheel brakes with both automatic adjustment and auto-reverse-mechanisms are now available on the market from several major manufacturers. Hence an exemption for brakes for O₁ and O₂ trailers seems to be no longer appropriate.
8. To give a reasonable lead time to the industry, automatic adjustment for brakes of O₁ and O₂ trailers should be mandatory till 01.01.2018.