

Type-Approval Procedure

Information System of the German Type-Approval Authority

Braking effect of vehicle combinations consisting of agricultural and forestry tractors pursuant to Regulation (EU) No. 167/2013 (new tractors), and towed vehicles which do not comply with the requirements of Regulation (EU) No. 167/2013 (old trailers).

Issue or problem:

As of 1 January 2018, tractors of the categories T1, T2, T3 and T4.3 must, concerning placing on the market or commissioning, comply with Regulation (EU) No. 167/2013. Coupled with this, the braking systems must comply with Regulation (EU) 2015/68. Here, in Annex II, Appendix 1, the requirements for the compatibility of tractors and towed vehicles are specified. According to Diagrams 2 and 3, the maximum permitted pilot pressure (lead), in other words the pressure actuated via the trailer brake valve before pressure is applied to the tractor's brake system, is limited to 20-100 kPa.

Tractors in accordance with Directive 2003/37/EC were not subject to such compatibility issues, so that in this case higher pilot pressures were possible. These range from experience between 200 and 300 kPa.

When combining a new tractor with an old trailer, the weaker or later control of the trailer may lead to a "shunting" of the latter, resulting in longer braking distances and to unstable braking and driving behaviour.

Result:

It is necessary to demonstrate compatibility with the type approval in accordance with Regulation (EU) No. 167/2013, both for towing and towed vehicles. The compliance of the compatibility bands as well as the braking effect of the vehicle combination are an element of the inspections according to Regulation (EU) 2015/68. Thus, a new tractor with a pilot pressure of a maximum of 100 kPa fulfils the requirements.

Older tractors or trailers which were not subject to pilot pressure restrictions also fulfil the regulations valid at the time they were placed on the market.

The inspection of a new tractor with an old trailer is demanded neither by Regulation (EU) No. 167/2013 nor by Regulation (EU) 2015/68, so that incompatibility, as described, may occur together with poorer braking and driving behaviour.

We request that the approval holders of new tractors state by 1 October 2019 whether, and in which way, users of new tractors are notified of possible incompatibility and the consequences thereof.

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