

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 13

(Braking)

Transmitted by the expert from Germany

Note: The text reproduced below was prepared by the expert from Germany in order to make it clear that, under certain conditions, it is permitted to provide an additional power supply to that available from the ISO 7638 connection.

This document supersedes document TRANS/WP.29/GRRF/2003/9 and TRANS/WP.29/GRRF/2004/1.

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**A. PROPOSAL**

Paragraph 5.2.2.15.2.1., amend to read:

"5.2.2.15.2.1. A failure within the electric control transmission of the trailer, and its energy supply from the electrical connector conforming to ISO7638:1997.\*/, that affects the function and performance of systems addressed by this Regulation, shall be indicated to the driver by the separate warning signal specified in paragraph 5.2.1.29.2. via pin 5 of the electrical connector conforming to ISO 7638:1997.\*/  
In addition, trailers equipped with an electric control line, when electrically connected to a towing vehicle with an electric control line, shall provide the failure information for activation of the red warning signal specified in paragraph 5.2.1.29.2.1. above, via the data communication part of the electric control line, when the prescribed service braking performance of the trailer can no longer be ensured."

Paragraph 5.2.2.17., amend to read:

"5.2.2.17. Trailers equipped .... vehicles in paragraphs 5.2.1.29.4., 5.2.1.29.5. and 5.2.1.29.6.  
Trailers equipped with an ISO7638 connector as defined above shall be marked in indelible form to indicate the functionality of the braking system when the ISO7638 connector is connected and disconnected. This marking is to be positioned so that is visible when connecting the pneumatic and electrical interface connections."

Insert a new paragraph 5.2.2.17.1. to read:

- "5.2.2.17.1. It is permitted to connect the braking system to a power supply in addition to that available from the ISO7638 connector above. However, when an additional power supply is available the following provisions will apply:
- In all cases the ISO7638 power supply is the primary power source for the braking system, irrespective of any additional power supply that is connected. The additional supply is intended to provide a back up should a failure of the ISO7638 power supply occur.
  - It shall not have an adverse effect on the operation of the braking system under normal and failed modes.
  - In the event of a failure of the ISO 7638 power supply the energy consumed by the braking system shall not result in the maximum available power from the additional supply being exceeded.
  - The trailer shall not have any marking or label to indicate that the trailer is equipped with an additional power supply.
  - A failure warning device is not permitted on the trailer for the purposes of providing a warning in the event of a failure within the trailer braking system when the braking system is powered from the additional supply.
  - When an additional power supply is available it shall be possible to verify the operation of the braking system from this power source.
  - Should a failure exist within the electrical supply of energy from the ISO7638 connector the requirements of paragraphs 5.2.2.15.2.1. and paragraph 4.1. of annex 13 with respect to failure warning shall apply irrespective of the operation of the braking system from the additional power supply.

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## **B. JUSTIFICATION**

During the fifty-fifth session of GRRF informal document No.2 was presented. This document was produced in order to take into consideration comments made at the fifty-third session of GRRF to ensure that uniform provisions were defined relating to the additional power supply that otherwise could lead to misunderstandings and misuse of the ISO7638 connection. The additional requirements introduced by this document were seen as an improvement, however, concerns were expressed by the experts from the United Kingdom and from France that there was still the possibility of a misunderstanding that it could be considered that in the event of an ISO7638 failure and an additional supply was available that there was no need to provide a warning to the driver that the specified ISO7638 power supply had failed. As a result an additional provision has been introduced in paragraph 5.2.2.17.1. to require that in the event of an ISO7638 power supply failure the driver should still be warned irrespective of whether an additional supply was available.

In considering the current requirements there appears to be some contradiction with respect to warning the driver in the case of an ISO7638 power supply failure:

Paragraph 5.2.2.15.2.1. states that failures within the electric control transmission of the trailer excluding its energy supply shall result in a warning to the driver.

Annex 13 paragraph 4.1. states that failures within the anti-lock braking system that affects its performance including its power supply must produce a warning to the driver being.

As this latter requirement applies to anti-lock braking systems and systems where there is an anti-lock braking function within a control system, there is a contradiction between this paragraph and paragraph 5.2.2.15.2.1. To remove this ambiguity it is proposed that paragraph 5.2.2.15.2.1. be amended to require that failure warning should also include an ISO7638 power supply failure. This in effect reflects the current industry practice.

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