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<u>World Forum for Harmonization of Vehicle Regulations (WP.29)</u>
 (One-hundred-and-twenty-ninth session,
11-14 March 2003, agenda item 4.2.3.)

PROPOSAL FOR DRAFT SUPPLEMENT 8 TO THE 09 SERIES OF AMENDMENTS
TO REGULATION No. 13

(Braking)

<u>Transmitted by the Working Party on Brakes and Running Gear (GRRF)</u>

<u>Note</u>: The text reproduced below was adopted by GRRF at its fifty-second session, and is transmitted for consideration to WP.29 and to AC.1. It is based on the text reproduced in the session report (TRANS/WP.29/GRRF/52, paras. 4., 7., 8. and annex 2).

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Throughout the Regulation and its annexes, replace the reference to
"ISO 11992-1:1998" by the reference to "[ISO 11992-1:2003]"

Throughout the Regulation and its annexes, replace the reference to
"ISO 11992-2:1998" by the reference to "[ISO 11992-2:2003]"

Text of the Regulation,

Paragraph 5.1.3.6., amend to read:

"5.1.3.6. The electric control line shall conform to [ISO 11992-1 and 11992-2:2003] and
be a point-to-point type using the seven pin connector according to ISO 7638-1
or 7638-2:1997. The data contacts of the ISO 7368 connector shall be used to
transfer information exclusively for braking (including ABS) and running gear
(steering, tyres and suspension) functions as specified in [ISO 11992-2:2003].
The braking functions have priority and shall be maintained in the normal and
failed modes. The transmission of running gear information shall not delay
braking functions. The power supply, provided by the ISO 7638 connector, shall
be used exclusively for braking and running gear functions and that required for
the transfer of trailer related information not transmitted via the electric control
line. However, in all cases the provisions of paragraph 5.2.2.18. of this
Regulation shall apply. The power supply for all other functions shall use other
measures."

Paragraph 5.1.3.6.1., amend to read:

" .... type approval by checking that the relevant provisions of
[ISO 11992:2003] parts 1 and 2 are fulfilled. Annex 17 of this Regulation ..... "

Paragraph 5.2.2.18., amend to read:

"5.2.2.18. Whenever power supplied by the ISO 7638:1997 connector is used for the
functions defined in paragraph 5.1.3.6. above, the braking system shall have
priority and be protected from an overload external to the braking system. This
protection shall be a function of the braking system."

Annex 6,

Paragraph 3.4.1., amend to read:

"3.4.1. The simulator shall produce a digital demand signal in the electric control line
according   to   [ISO   11992-2:2003]   and   shall   provide   ....
(see paragraphs 6.4.2.2.24. and 6.4.2.2.25. of [ISO 11992-2:2003])."

Annex 15, paragraph 4.6.3.1., amend the reference to "paragraph 1.7.4. of annex 4" to read
"paragraph 1.7.2. of annex 4".

Annex 16, amend to read:

"Annex 16

(Reserved)"

Annex 17,

Paragraph 3.1.2., amend to read:

"3.1.2.   be capable of receiving all of the messages transmitted by the motor vehicle to be type approved and be capable of transmitting all trailer messages defined within [ISO 11992-2:2003];"

Paragraph 3.2.2.1.1., renumber as paragraph 3.2.2.2.1., and amend the heading of the third column of the table to read " Electrical Control Line Signal Value"

Paragraphs 3.2.2.3.1. and 3.2.2.3.2., amend the reference to "paragraph 5.2.1.29.2." to read "paragraph 5.2.1.29.1.2."

Insert a new paragraph 3.2.2.4., to read:

"3.2.2.4.   Supply line braking request:

For power-driven vehicles which can be operated with trailers connected via an electric control line only:

Only the electric control line shall be connected.

Simulate message EBS 22, byte 4 with bits 3 - 4 set to 01b and check that when the service brake, secondary brake or parking brake is fully actuated the pressure in the supply line falls to 1.5 bar within the following two seconds.

Simulate a continuous absence of data communication and check that when the service brake, secondary brake or parking brake is fully actuated the pressure in the supply line falls to 1.5 bar within the following two seconds."

Paragraphs 3.2.2.4. and 3.2.2.4.1. (former), renumber as paragraphs 3.2.2.5. and 3.2.2.5.1.

Paragraph 4.1.3., amend to read:

"... vehicle messages defined within [ISO 11992-2:2003]."

Paragraph 4.2.2.1.1.1., amend the table to read:

"

Message Transmitted by the Simulator		Pressure at the Brake Chambers
Byte Reference	Digital Demand Value	
3 - 4	0	0 bar
3 - 4	33280d (6.5 bar)	As defined in the vehicle manufacturer's brake calculation

"

Paragraph 4.2.2.1.1.2., amend the table to read:

"

Message Transmitted by the Simulator		Pressure at the Brake Chambers
Byte Reference	Digital Demand Value	
3 – 4	0	0 bar
3 – 4	33280d (6.5 bar)	As defined in the vehicle manufacturer's brake calculation

"

Insert a new paragraph 4.2.2.1.3., to read:

"4.2.2.1.3.   For trailers connected with only an electrical control line, the response of the trailer to a failure in the electric control transmission of the trailer which results in a reduction in braking performance to at least 30 per cent of the prescribed value shall be checked by the following procedure:

The pneumatic supply line at the start of each test shall be ≥ 7.0 bar.

The electric control line shall be connected to the simulator.

Byte 3, bits 5-6 of EBS 12 set to 00b to indicate to the trailer that a pneumatic control line is not available.

Byte 3, bits 1-2 of EBS 12 set to 01b to indicate to the trailer that the electric control line signal is generated from two independent circuits.

The following shall be checked:

Test Condition	Braking System Response
With no faults present in the trailer braking system	Check that the braking system is communicating with the simulator and that Byte 4, bits 3-4 of EBS 22 is set to 00b.
Introduce a failure in the electric control transmission of the trailer braking system that prevents at least 30 percent of the prescribed braking performance from being maintained	Check that Byte 4, bits 3-4 of EBS 22 is set to 01b Or The data communications to the simulator has been terminated

"

Paragraph 4.2.2.2.1.1., amend to read:

"4.2.2.2.1.1.   Where a permanent failure within the electric control transmission of the trailer braking system precludes the service braking performance being met, simulate such a failure and check that byte 2, bits 3 - 4 of EBS 22 transmitted by the trailer is set to 01b. A signal should also be transmitted via pin 5 of the ISO 7638 connector (yellow warning)."

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