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EMB and PTI

18th GRVA MEETING

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Inspection of brakes of HDV – current status:

- **Requesting fully loaded HDV in PTI is extremely challenging:**
 - **M2 and M3**
 - **ADR**
 - **Garbage trucks**
 - **Animal transport**
 - **...**
- **The relationship between the pneumatic pressure and braking force is used as an alternative to inspecting fully loaded vehicles**

Some data:

- **Defects on brakes account for 60% of the defects of M2, M3, N2, N3, O3, O4, T and R vehicles ⁽¹⁾**
- **Service brake efficiency defect is the 5th most frequent PTI defect for the above vehicles ⁽¹⁾**
- **Rejected vehicles of categories M2, M3, N2, N3, O3, and O4 because of brakes range from 10,4 to 13.1% ⁽²⁾**

(1) Slovakia, 2022. (2) Croatia, 2023

The current proposal for EMB⁽³⁾ already contains provisions for reference brake forces related to a “brake demand value”

The Regulation needs to be completed to define how brake demand values will be accessed in real-time during PTI in the most standardized way. (As today UN R13 defines a plug to connect a pressure gauge to retrieve real-time pressure and compare it with the braking forces)

⁽³⁾ ECE/TRANS/WP.29/GRVA/2024/13

Reference forces and real-time access to the vehicle's "brake demand value" during PTI and roadside inspection needs to be available at least for HDV M, N, and O

Please notice the above only implies reading information, therefore it is not a threat to cybersecurity

Moreover:

When friction braking is combined with electric braking, it is necessary to know, which is the system slowing down the vehicle during the PTI tests. PTI checks both emergency and regular braking.



Thank you for your attention!

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