



# **Electrical Transmission Braking System (ETBS)**

**UN REG 13 & 13-H**

**PTI 41-03**

## GRVA meeting in January (Geneva) :

CITA presented **UN Reg 13 & 13-H amendment** through 2 formal documents:

(CITA) Proposal for amendments to UN Regulation No. 13 (Heavy Vehicle Braking) | UNECE

(CITA) Proposal for amendments to UN Regulation No. 13-H (Braking of passenger cars) | UNECE

*Paragraph 5.1.4.4.1.1., amend to read:*

5.1.4.4.1.1. It shall be possible to evaluate the relationship between the brake demand value(s) and the measured braking force on a roller brake tester. The brake demand value(s) shall be displayed on the vehicle and easily readable from the driver's seat during the roller brake test (e.g., using a menu system, automatic demand, etc.). **Additionally, it shall be possible to read and record the brake demand value(s) through the On-Board Diagnostics (OBD) connector using a scan tool.** The vehicle manufacturer shall describe how to display **and access** those values and make this information available according to paragraph 5.2.4.4.1. ~~above~~ **below**.

## CITA proposal

- Need for **harmonization** of braking system tests.
- **No exclusion** of countries using one other method.
- Improvement to allow all countries currently using the data available via the OBD to still benefit from this information **without any additional investment**.

## Clarifications

- Current **proposal not new** but consists of an improvement of the existing one.
- OBD **scantool already implemented in PTI** with **no cybersecurity risks**.
- Amendment introduction = **best time** before future technology on the roads.

**POSITIVE reactions from EC, Slovakia, Germany, Spain and the Netherlands**

## GRVA meeting in June (Bangkok) :

- Enable **live reading** of brake demand values **via OBD and display** during PTI
- Improve road safety by ensuring accurate brake performance assessment

## Scope: UN R13 – Doc 2025/43e & UN R13-H – Doc 2025/44e

### I. Proposal

*Insert new paragraph 2.38., to read:*

**2.38.** “*On-Board Diagnostic (OBD) system*” means an on-board diagnostic system for the vehicle’s self-diagnostic and reporting, which has the capability of detecting the occurrence of a malfunction and of identifying the likely area of malfunction by means of fault codes stored in computer memory. OBD live values refer to the real-time data streamed from vehicle’s sensors and systems.

*Paragraph 5.1.4.4.1.1., amend to read:*

5.1.4.4.1.1. It shall be possible to evaluate the relationship between the brake demand value(s) and the measured braking force on a roller brake tester. The brake demand value(s) shall be displayed on the vehicle and easily readable from the driver’s seat during the roller brake test (e.g., using a menu system, automatic demand, etc.). **Additionally, it shall be possible to read the brake demand value(s) through the OBD connector, if existing, using a scan tool.** The vehicle manufacturer shall describe how to display **and access** those values and make this information available according to paragraph 5.1.4.3.1. above.

*Insert new paragraph 12.1.2.1., to read:*

**12.1.2.1.** [As from the official date of entry into force of the supplement 1 to the 02 series of amendments, Contracting Parties applying this Regulation shall require the compliance of paragraph 5.1.4.4.1.1. for granting type approval extensions for a vehicle equipped with an electrical transmission braking system.]

### II. Justification

1. This proposed supplement to the 02 series of amendments to UN Regulation 13-H aims to include pertinent provisions for Periodic Technical Inspection (PTI) regarding electrical transmission braking systems in Light Duty Vehicles (LDV) in a non-discriminatory way for Contracting Parties applying the reference forces method.

2. This supplement is justified by the need to update and strengthen vehicle safety standards in response to the growing complexity of electrical transmission braking systems. It aligns with current technologies and measurement practices to ensure reliable, efficient inspections, enhancing road safety worldwide without placing undue burden on vehicle owners or fleet managers, and while maintaining consistency with existing regulations. The functionality exposed in this document relays in software updates, which average lead time for deployment use to be 3-6 months but, as the transitional provisions stated in the 02 series of amendments to UN Regulation 13-H already consider 3 years, the lead time is covered and no additional transitional provisions are required.

3. Paragraph 12.1.2.1. is introduced with the objective of implementing the functionality required in this document as soon as possible, while minimizing the impact on both Contracting Parties and vehicle manufacturers. However, CITA proposes to present this paragraph in square brackets, allowing the final decision on its inclusion to be taken by the Contracting Parties themselves, without this approach being exclusive of the rest of the proposal.

4. The technical requirements exposed in the present document pertain solely and exclusively to the reading of a specific value, as it is the brake demand value, and under no circumstances does it involve, imply, or permit the modification or manipulation of said value or any other.

## Key Provisions:

- **New OBD definition** including real-time live values
- **Brake demand values:**
  - Visible from driver's seat during roller brake test
  - Accessible via OBD connector with a scan tool
- **Implementation:**
  - For type approval extensions; transitional ~3 years
  - No manipulation of values – read-only
  - Optional immediate application (12.1.2.1 in square brackets)

## Impact:

- Harmonizes PTI for LDV & HDV brake-by-wire systems
- Enhances inspection efficiency & road safety without extra burden

## GRVA meeting in September (Geneva) :

- Proposal submitted by **CITA, OICA and CLEPA** to amend UN R13 & R13-H regarding Electrical Transmission Braking Systems (ETBS)

## Scope: Amendments to UN R13 – Doc 2025/43 & UN R13H – Doc 2025/44

*Insert new paragraph 2.57., to read:*

2.57. ~~“On-Board Diagnostic (OBD) system” means an on-board diagnostic system for the vehicle’s self-diagnostic and reporting, which has the capability of detecting the occurrence of a malfunction and of identifying the likely area of malfunction by means of fault codes stored in computer memory. OBD live values refer to the real-time data streamed from vehicle’s sensors and systems.~~

~~“Electronic vehicle interface” provides the access to real time parameters of the braking system specified within this regulation.~~

*Paragraph 5.1.4.6.2.1., amend to read:*

5.1.4.6.2.1. It shall be possible to evaluate the relationship between the brake demand value(s) and the measured braking force on a roller brake tester. The brake demand value(s) shall be displayed on the vehicle and easily readable from the driver’s seat during the roller brake test (e.g., using a menu system, automatic demand, etc.). **Additionally, it shall be possible to read the brake demand value(s) through the OBD connector or an electronic vehicle interface (e.g. the OBD port), if existing, using a scan tool or an off board electronic device.** The vehicle manufacturer shall describe how to display **and access** those values and make this information available according to paragraph 5.1.4.5.1. above.

*Insert new paragraph 12.1.2.1., to read:*

12.1.2.1. ~~{As from the official date of entry into force of the supplement 1 to the 14 series of amendments, Contracting Parties applying this Regulation shall require the compliance of paragraph 5.1.4.6.2.1. for granting type approval extensions for a vehicle equipped with an electrical transmission braking system.}~~

Until 24 months after the date of entry into force of the Supplement 3 to the 14 series of amendments to this Regulation, Contracting Parties applying this Regulation can continue to grant or extend type approvals to the 14 series of amendments to this Regulation without taking into account the amendments of the Supplement 3.

## Key Provisions:

- Introduction of a **neutral term “electronic vehicle interface”**, replacing references to the OBD connector, to allow access to real-time brake demand values via any interface.
- **Brake demand values** must be:
  - Displayed on the vehicle dashboard (visible to driver) during test.
  - Accessible via an off-board device (e.g. OBD port when available).
- **Alignment with terminology** in UN R156 (software updates) and UN R157 (ALKS) ensures regulatory consistency.
- Includes a **24-month transitional period** for manufacturers to adapt, without requiring a new amendment series.

## Impact – Next steps:

- A revised proposal, developed after discussions between UK, Denmark, OICA and CITA, gained **support** from Sweden, UK, Denmark, Germany and Spain.
- The document was **approved by GRVA** and will be forwarded to WP.29 in March 2026.



**THANK YOU**

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