Submitted by the experts from CLEPA and OICA

Informal document **GRVA-18-56**
18th GRVA, 22-26 January 2024
Agenda item 8 (c)

Proposal for amendments to UN R13 and UN R13-H

Mechanical locking device as an alternative to the friction parking braking to hold the vehicle

OICA CLEPA European Association of Automotive Suppliers

static task

TODAY

Issue :
harmed parking/service brake by corrosion or freezing

parking braking system: friction type exclusively

inf. doc. 18-08 (UN R 13) inf. doc. 18-09 (UN R13-H)

Proposal to amend UN R13-H, para. 5.2.10. and UN R13, para. 5.2.1.10:
The service, secondary and parking braking systems shall act on braking surfaces connected to the wheels through components of adequate strength.
The parking braking system may use a mechanical locking device (e.g., gear lock, parking pawl) of adequate strength as an alternative to means acting on the braking surfaces to fulfil the requirements set out in annex 3, paragraphs 2.3.1 and 2.3.2 of this Regulation. → for UN R13 annex 4, paragraph 2.3.1 and 2.3.2. is addressed

The static task of the parking braking system can be fulfilled by a friction and/or locking type

AND / OR

parking braking system: friction **and/or** locking type

dynamic task

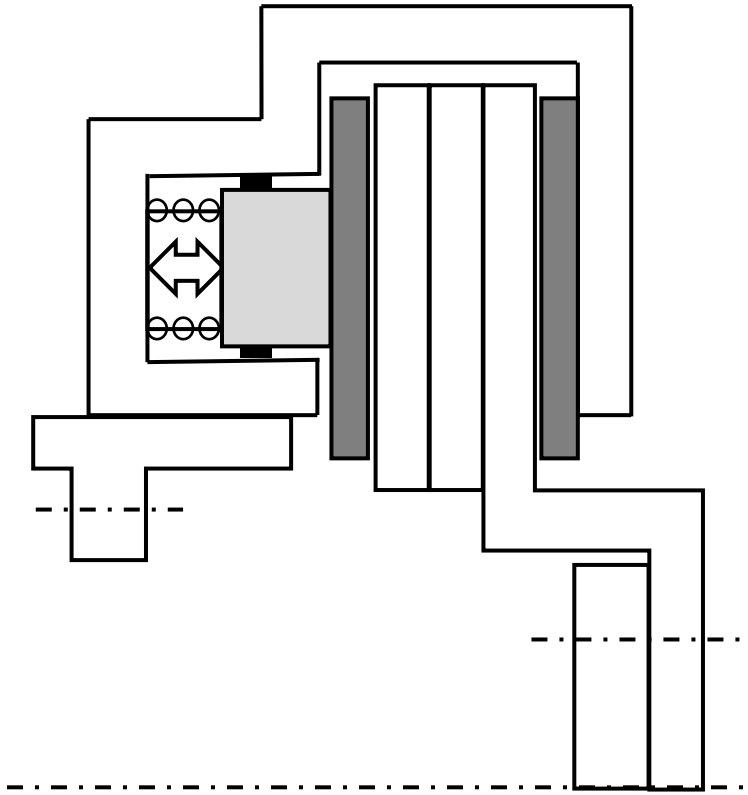
UN R13-H, para. 5.2.2.4 ; UN R13, para. 5.2.1.2.4.
The parking braking system shall be so designed that it can be actuated when the vehicle is in motion. **This requirement may be met by the actuation of the vehicle's service braking system**, even partially …

UN R13H, annex 3, para. 2.3.6 ; UN R13, annex 4, para. 2.3.6.
To check compliance with … paragraph 5.2.2.4. …on application of the control of the parking brake system and the deceleration immediately before the vehicle stops, shall not be less than 1.5 m/s2.

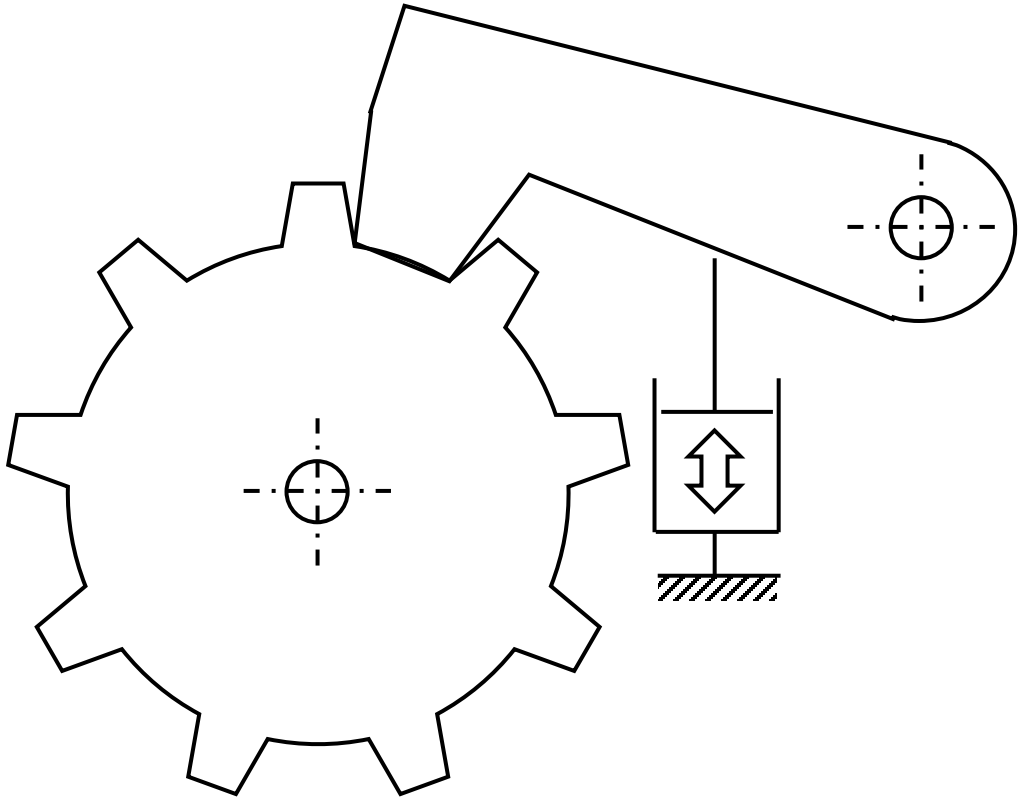
mechanical energy transmission to the parking brake
e.g: handbrake lever

hydraulic energy transmission of the service brake
e.g: ESC

electro-mechanical energy transmission to the service brake
e.g: EMB



friction type
e.g. parking brake / EMB …



locking type
e.g. parking pawl / gear lock …