



VO (EU) no. 2015/208 Anx. XIV

Requirements for the exterior and for accessories of the vehicle

- Overview
- Scope
- Requirements
- Special features
- Practical implementation

Overview



All vehicle classes acc. to CR (EU) no. 167/2013 have to meet the requirements!

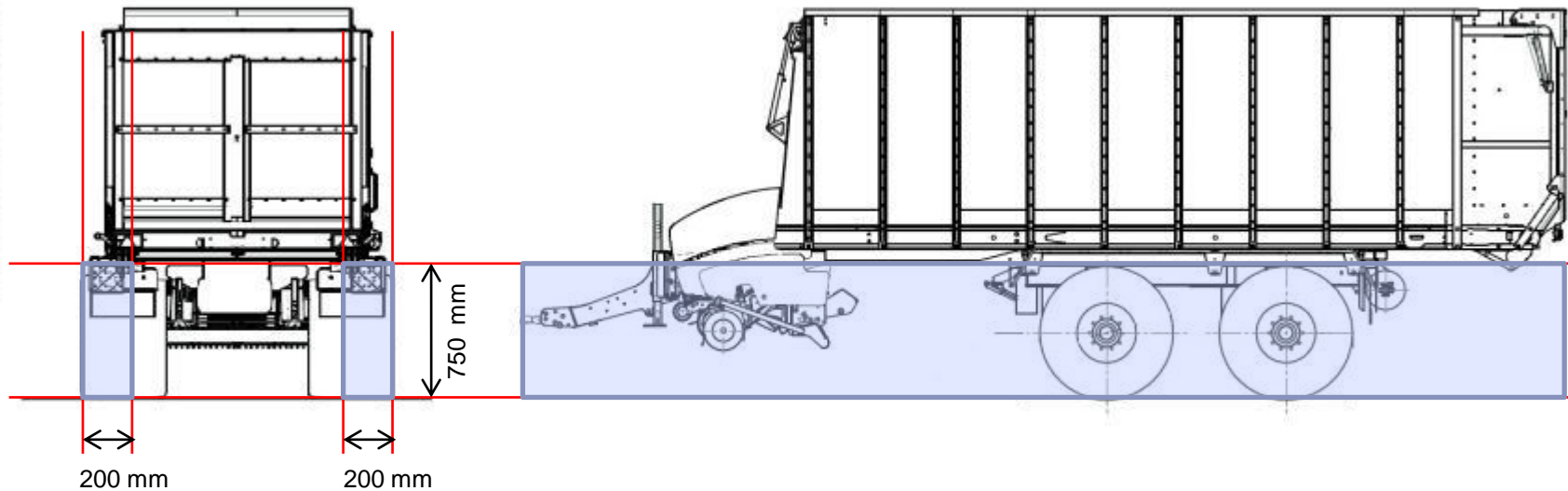


- Exemptions are defined for certain tools on vehicles of the classes R and S.
- Different areas of application depending on the outer edge of the vehicle

Scope (1)

- ...concerns the following parts of the outer surface:
- „...those parts including the entire wheel and track... on **the sides** and in a height of **less than 0.75 m** which form the outer edge for each **vertical plane perpendicular to the longitudinal axle**....“.
 - „...apart of those parts wich are **further than 200 mm** away from the right and left outer edge in relation to the longitudinal axle ...“.

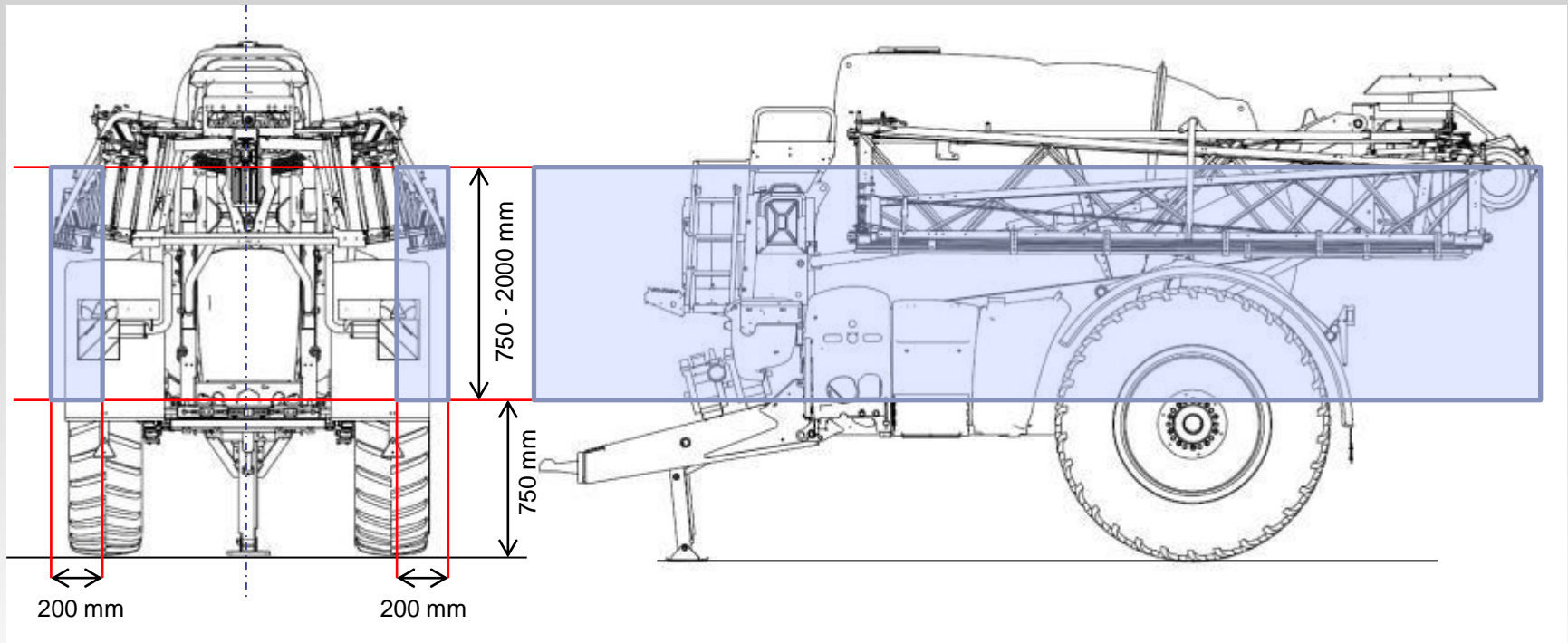
Scope (1)



- Define outer edge
- Define height range
- Tyres, wheels and rims, axles etc. are assessed

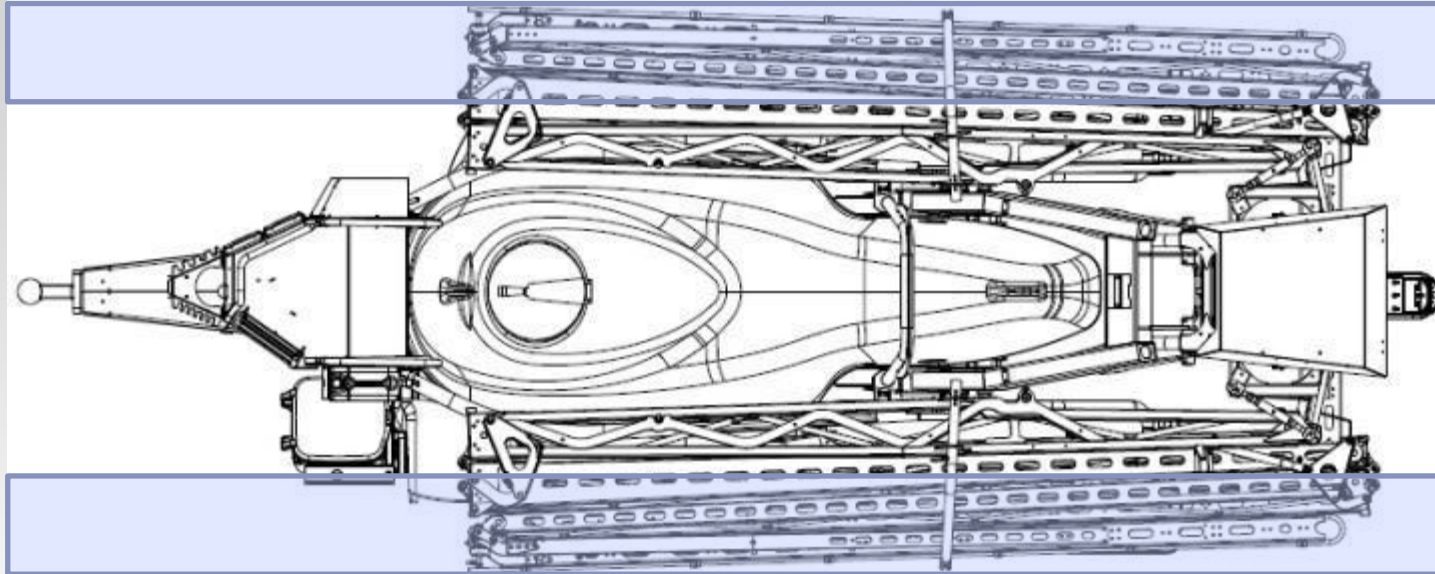
- All parts on the sides in a height between 0.75 m and 2 m without:
- „...those parts which **cannot be touched with a ball** of a diameter of 100 mm when approaching horizontally in any plane perpendicular to the longitudinal axle; the **deferment** must not exceed **200 mm** ...“.
- „...the entire **wheels and tracks**...“.

Scope (2)



- Define outer edge
- Define height range
- Deferment of ball max. 200 mm
- Tyres, rims, axles, etc. are not assessed

Scope (2)



- No protruding part of the outer area must have a rounding radius of less than 2.5 mm.
- This does not apply to parts which:
 - Protrude less than 5 mm. The outer edges of these parts must be chamfered.
 - Protrude less than 1.5 mm.
 - Have outer areas made of material of a hardness of less than 60 Shore A.

- The outer areas of the vehicle must not have pointy or sharp parts facing outwards, rough surfaces or parts protruding outwards.
- No outwards pointing parts must be on the outer areas of the vehicle in which pedestrians, bicyclists or motor bike drivers could be caught.

- Selection of test vehicle:
 - largest tyre diameter
 - narrowest track
 - loaded vehicle
 - worst case for vehicles with leveling suspension, etc.

- The following parts are exempt:
 - Tyre pressure tester
 - Anti-slip device which can be attached to the wheels
 - Rear-view mirrors
 - Direction indicators on the side
 - End-outline marker lamp
 - Position lamp and tail light
 - Parking lights

Special features

- Exemption for unprotected tools on vehicles of classes R and S, if they are folded shut for street transport and if they are assigned to directive 2006/42/EC.



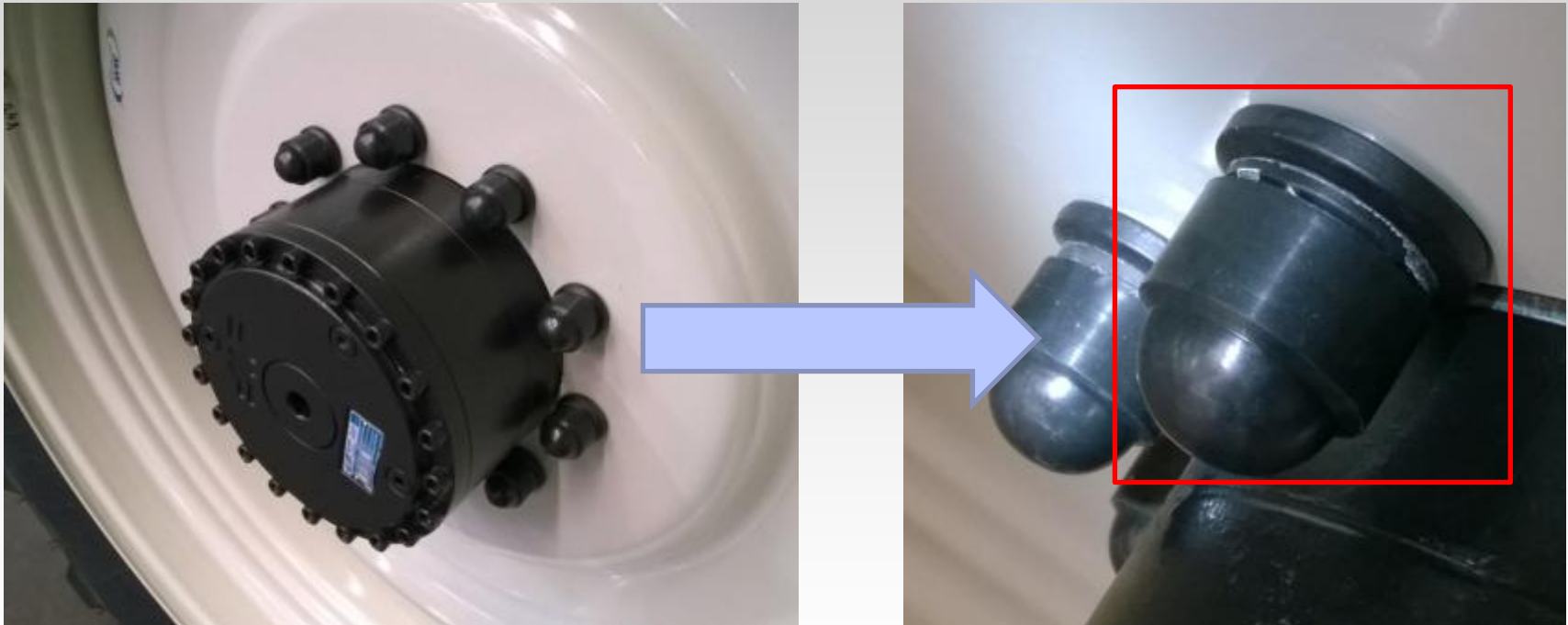
Practical implementation

- Problem: wheel bolts / wheel nuts



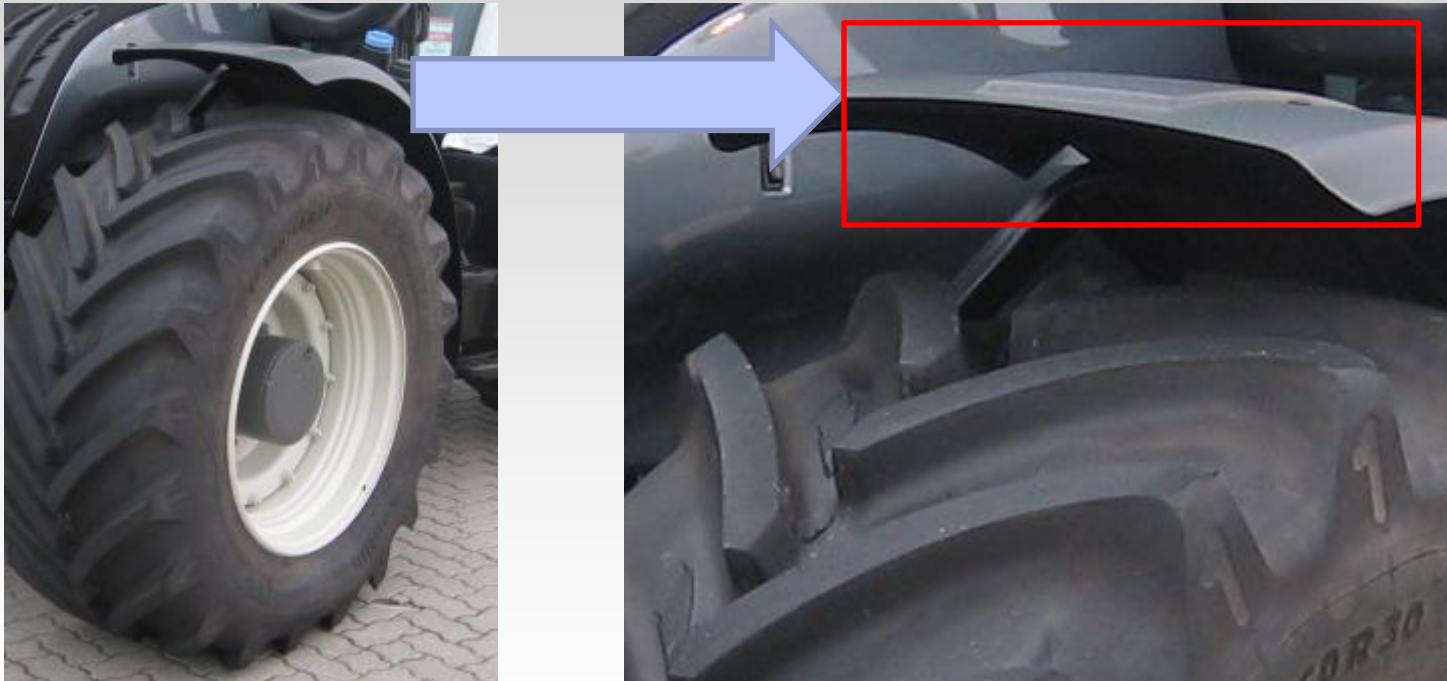
Practical implementation

- Solution: Wheel bolt/ wheel nut



Practical implementation

- Problem: Mudguards

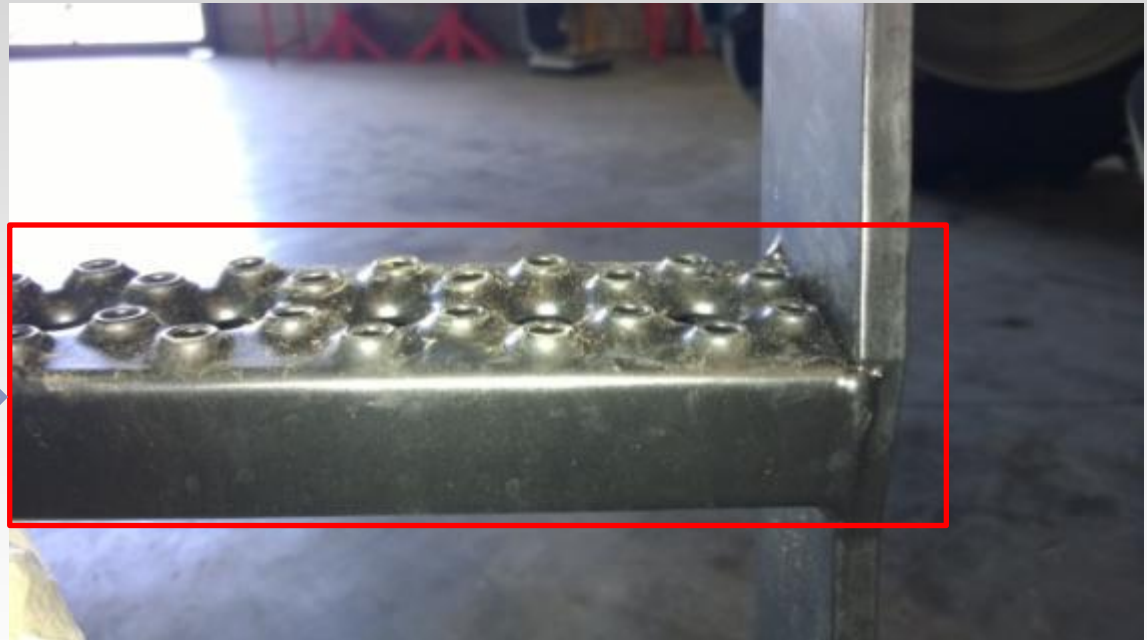


Practical implementation

- Solution: Mudguards

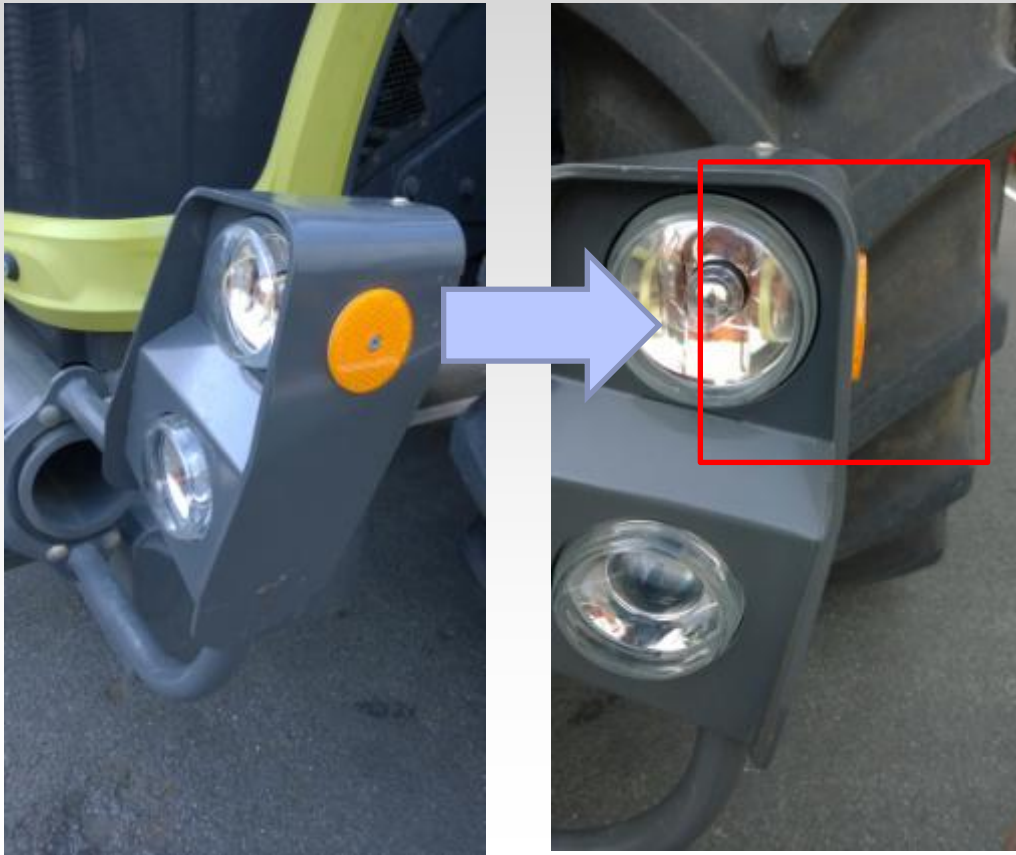


- Problem: Steps



We are working on the problem of roughness!

- Problem: Side reflectors

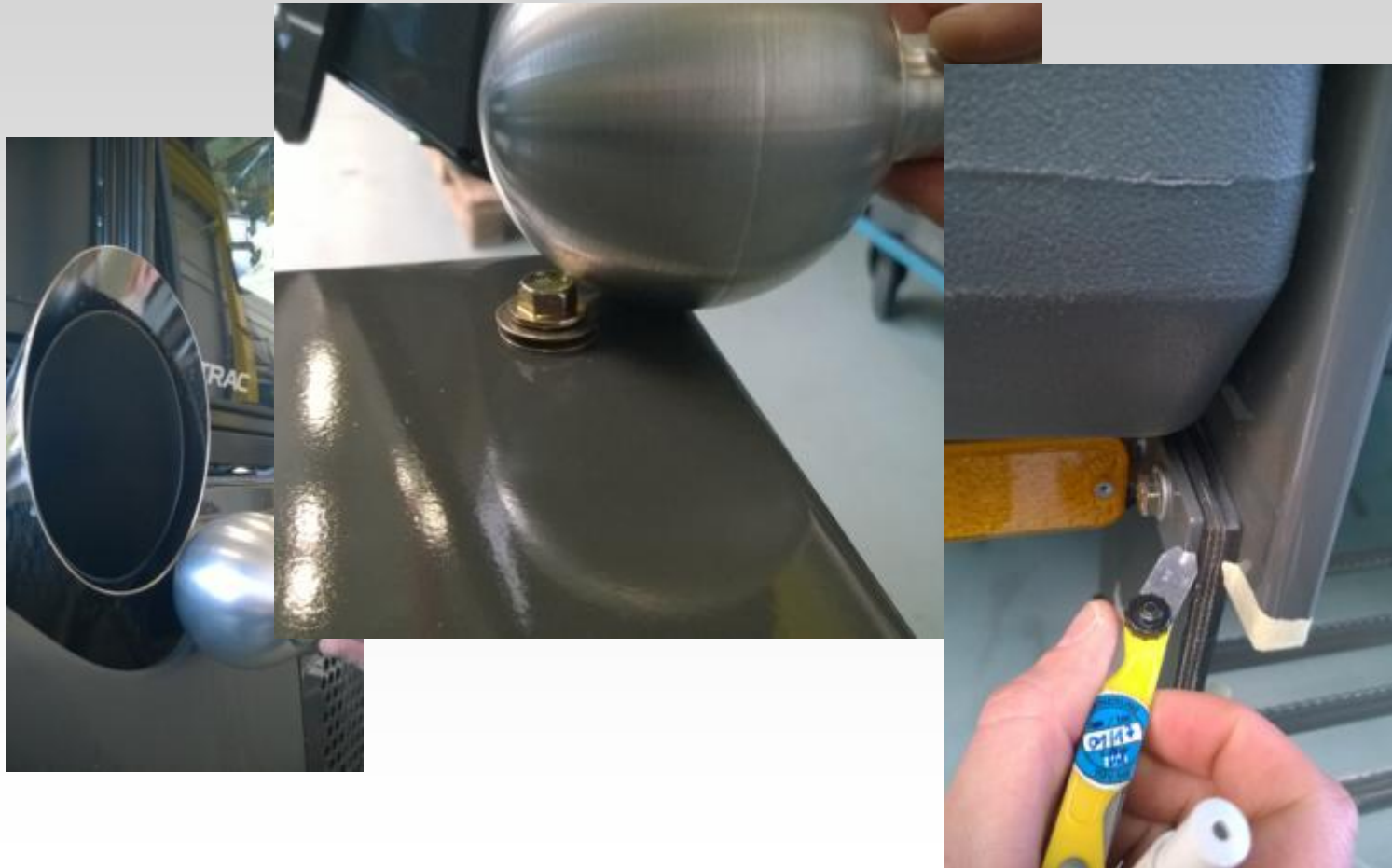


Reflectors are not exempt!
We are in discussion with the authorities!



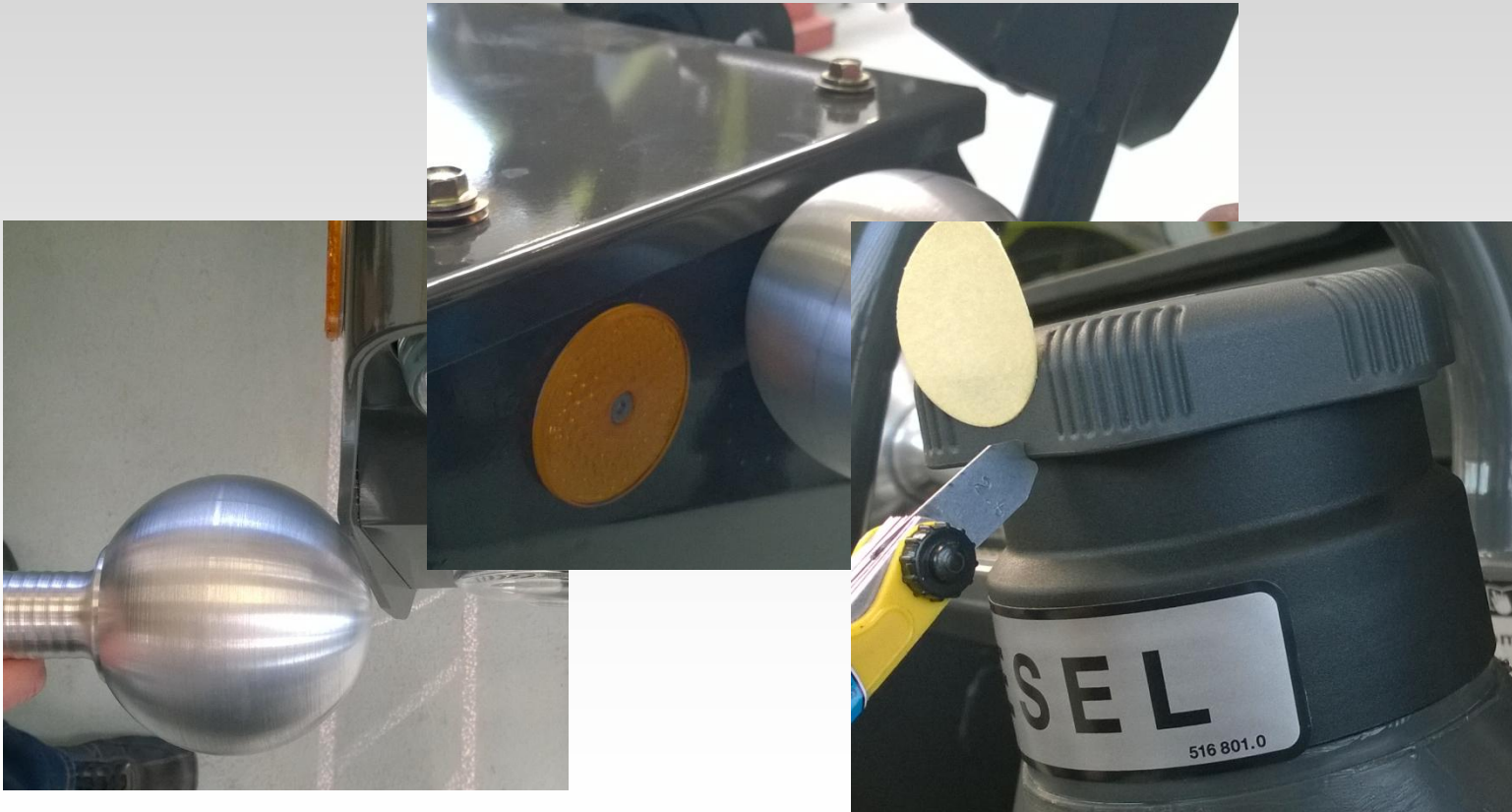
Practical implementation

- Further problems with the implementation:



Practical implementation

- Further problems with the implementation:



Thank you for listening



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