

# SubWG Brake Testing: German and Slovak initiative to let out the weighting device from obligatory PTI equipment

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# Axle load measuring device in the Directive 2014/45/EU

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## ANNEX III

### MINIMUM REQUIREMENTS CONCERNING ROADWORTHINESS FACILITIES AND TEST EQUIPMENT

#### I. Facilities and equipment

Roadworthiness tests undertaken in accordance with the recommended methods specified in Annex I shall be carried out by using appropriate facilities and equipment. This may include, where applicable, the use of mobile test units. The test equipment that is necessary will depend on the vehicle categories to be tested, as described in Table I. Facilities and equipment shall comply with the following minimum requirements:

...

- (7) A wheel/axle load measuring device to determine the axle loads (optional facilities for measuring two-wheel loads, such as wheel weight pads and axle weight pads);

# Axle load measuring device in the Directive 2014/45/EU

Minimum equipment required for the purpose of performing a roadworthiness test														
Vehicles		Category		Equipment required for each item listed in Annex I										
	Maximum mass			1	2	3	4	5	6	7	8	9	10	
	Up to 3 500 kg	M <sub>1</sub> ,M <sub>2</sub>	P	x	x		x					x	x	
	Up to 3 500 kg	M <sub>1</sub> ,M <sub>2</sub>	D	x	x		x					x		x
	> 3 500 kg	M <sub>2</sub> ,M <sub>3</sub>	P	x	x	x		x	x	x	x	x	x	x
	> 3 500 kg	M <sub>2</sub> ,M <sub>3</sub>	D	x	x	x		x	x	x	x		x	x
3. Vehicles for the carriage of goods														
	Up to 3 500 kg	N <sub>1</sub>	P	x	x		x					x	x	
	Up to 3 500 kg	N <sub>1</sub>	D	x	x		x					x		x
	> 3 500 kg	N <sub>2</sub> ,N <sub>3</sub>	P	x	x	x		x	x	x	x	x	x	x
	> 3 500 kg	N <sub>2</sub> ,N <sub>3</sub>	D	x	x	x		x	x	x	x		x	x
4. Special vehicles derived from a category N vehicle, T5														
	Up to 3 500 kg	N <sub>1</sub>	P	x	x		x					x	x	
	Up to 3 500 kg	N <sub>1</sub>	D	x	x		x					x		x

“Minimum equipment required for the purpose of performing a roadworthiness test”

# Axle load measuring device in the Directive 2014/45/EU

until May 20<sup>th</sup>, 2023

## Article 22

### Transitional provisions

1. Member States may authorise the use for a period of not more than **five years after 20 May 2018** of testing facilities and equipment referred to in Article 11 that do not comply with the minimum requirements laid down in Annex III for carrying out roadworthiness tests.

...

# Axle load measuring device: What is the purpose?

For the recommended PTI methods in Annex I of 2014/45/EU, a load measuring device is not necessary.

The braking ratio calculation methods, although in line with 2014/45/EU, differ in different EU Member States. Some aren't using the actual weight as the input value.

Considering the situation in their countries, German and Slovak CITA members recognized this requirement of 2014/45/EU as problematic.

# SubWG Brake Testing: CITA should propose to suspend the load measuring device from the Directive

The “axle load measuring device problem” has been incorporated into SubWG agenda.

SubWG drafted a CITA position paper for the European Commission.

Besides the description of the legal situation in 2014/45/EU, the justification consisting of 3 points is included:

# SubWG Brake Testing: CITA should propose to suspend the load measuring device from the Directive

(1) There is no recommended method specified in Annex I of 2014/45/EU which requires or uses the actual weight of the vehicle as "criteria to be used when determining whether the condition of the vehicle is acceptable" (Annex I, Number 1).

# SubWG Brake Testing: CITA should propose to suspend the load measuring device from the Directive

(2) The efficiency test of the braking system (Point 1.2.2 Annex I of 2014/45/EU) relates to the maximum authorized mass or, in the case of semitrailers, to the sum of the authorized axle loads. The braking ratio calculation methods, although in line with 2014/45/EU, differ in different Member States. Some (e.g. Belgium, Croatia, the Czech Republic, Germany, Hungary, Latvia, the Netherlands and the Slovak Republic) aren't using the actual weight as the input value.



# SubWG Brake Testing: CITA should propose to suspend the load measuring device from the Directive

(3) Necessary information to check the load sensing valve (point 1.1.17 annex I of 2014/45/EU) can be found on the LSD- or EBS-plate, for example suspension bag pressure or linkage length / justification. The actual axle load doesn't need to be known.

# Additional information for BP and interested CITA members

- 1) For the recommended methods in Annex I of 2014/45/EU, a load measuring device is not necessary. Any member state which has additional, national methods that use the actual vehicle load may use it as additional equipment.
- 2) The measuring range of a suitable load measuring device must be at least 11.5 t per axle, respectively 5.75 t per wheel (or depending on higher national permitted axle load even more).

# Additional information for BP and interested CITA members

3) Article 11, point 3 of 2014/45/EU states that the equipment used for measurements shall be periodically calibrated in line with Annex III and verified in accordance. The costs of calibration add to the costs of the unnecessary equipment.

4) Measurement devices are required to be calibrated; calibratable load measuring devices are more expensive to purchase and maintain than non-calibratable.

# Additional information for BP and interested CITA members

5) In a survey, there were two types of calibratable devices:

5a) in-floor devices for one axle, which require additional costs of in-floor installation. (typical price ~4000€ plus tax + installation + calibration fee).



# Additional information for BP and interested CITA members

5b) single wheel devices (mobile), which are only calibratable as a set for all axles (so at least 6 devices for 3 axles); (typical price 6X ~1700€ plus tax + installation/even floor + calibration fee).



# Axle load measuring option for a roller brake tester

typical price (Slovakia): device ~ 8000€ plus tax,  
installation ~ 1000€ plus tax



# Additional information for BP and interested CITA members

The upcoming requirement to have a load measuring device without a method which uses it, is an unnecessary and significant burden for the PTI bodies and consequently for the EU citizens. It is also clearly contrary to the requirement that "*Testing a vehicle should be relatively inexpensive*".



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