

New developments resulting from ECE directive 13

Change series 11, Supplement 2

1. Background and deadlines

The relevant specifications for brake approvals were changed.

Today, both EC as well as ECE certificates can be used for the appropriate vehicle approvals.

The EC certificates will lose their validity:

- from 01.11.2012 for new type approvals
- from 01.11.2014 for all new vehicles

Existing ECE certificates will have to be updated:

- from 24.10.2013 for new type approvals
- from 24.10.2016 for all new vehicles

In the context of these changes, the axle manufacturers are obliged to provide more comprehensive documentation on each tested brake. The data listed therein serves as a binding minimum requirement for each vehicle registration.

The following points provide additional information in this regard.

2. New axle type plate - Introduction of codes ID1 to ID4

The latest change to the brake directive ECE-R13 (Series 11, Supplement 2) requires a modification of the axle type plates for our axles:

ID1 - Axle code

ID2 - Brake code

ID3 - Tested brake axle load

ID4 - Basic number of the test report

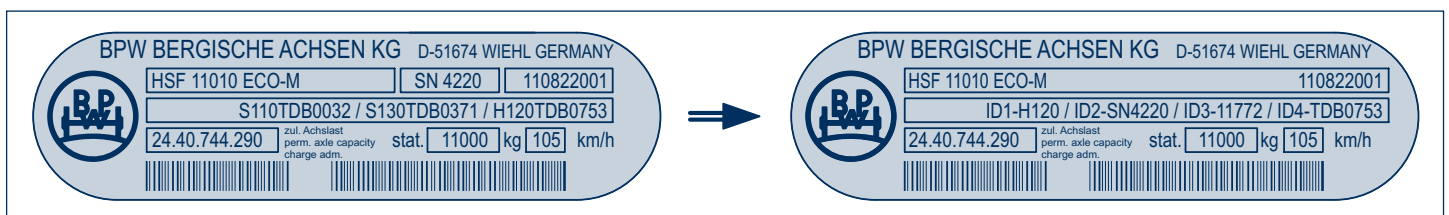


Figure 1: Current axle type plate -> New type plate

The changes to the axle type plates should take place in stages with the introduction of the new brake certificates.

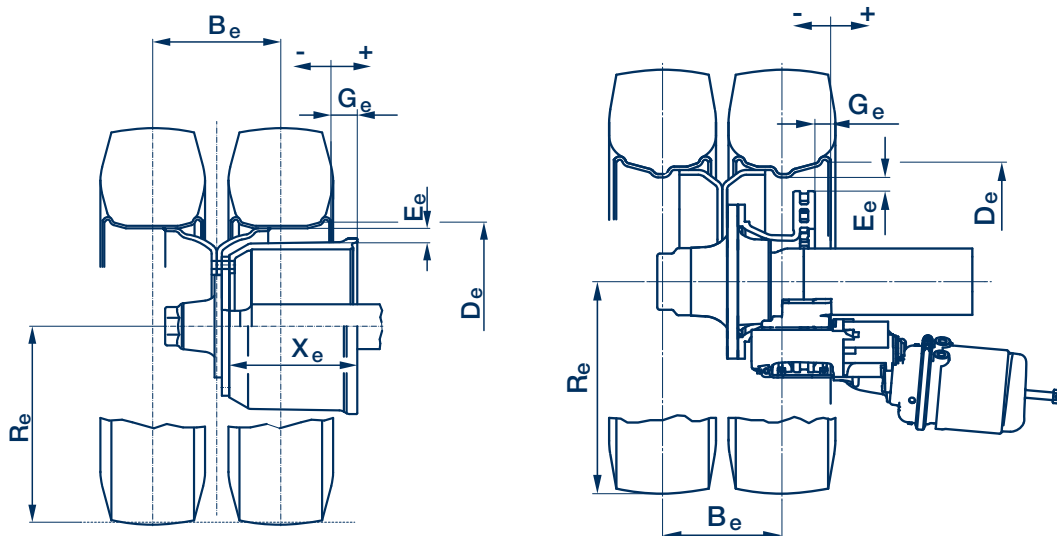
3. Axle load

Besides the brake system, the permissible axle load is primarily calculated from the axle beam and wheel bearing used. The ID1 and ID3 data relate only to the brake.

4. Wheels

According to Supplement 2, the new test reports shall, in contrast to previous documents, no longer contain tyre tables in the known form. The appendix to these certificates form so-called „Information Documents“. They contain all the dimensions between the brake and wheel, relevant for technical services, which may not be undershot. Figure 2 shows an example of a section of an „Information Document“ with this data.

This means that you can use the data of your rim and tyre suppliers to select the right wheel. The dynamic half tyre diameters are taken from the current ETRTO list produced by the tyre manufacturers and may not be undershot by more than 20 %.



Permitted range:				
D (mm)	E (mm)	G (mm)	R (mm)	X (mm)
min. 444.5	min. 24	min. 30	min. 0.8 * 382	min. 260

Figure 2: Minimum approved coverage of brakes and wheel

5. Slack adjuster and camshaft (drum brakes)

The „Information Documents“ also document details about the camshafts and the corresponding slack adjusters. The example in Table 1 shows that only the certificate given allows camshafts with a length of up to 267 mm (from the centre of the slack adjuster to the centre of the S-cam) to be covered with automatic slack adjusters AGS-0. Camshafts with an effective length of up to 672 mm may only be used together with AGS-2. Longer camshafts are not permitted.

3.2.1.1. Alternative	3.2.1.2. Manufacturer and adress	3.2.1.3. Make	3.2.1.4. Type	3.2.1.5. Version	3.2.1.6. Effective length of the cam shaft
A	see 1.1	BPW	AGS-	0	max. 267 mm
B	see 1.1	BPW	AGS-	2	max. 672 mm

Table 1: Maximum approved camshaft lengths with assigned slack adjusters

The current version of ECE-R13 may already be used in advance for type approval. BPW will offer you these expanded certificates in steps. You can find the current version on our website at <http://www.bpw.de/download/gutachten>.