

## CHAPTER 26

## BRAKES

## SECTION 26-1

**BRAKING SYSTEMS ON VEHICLES AND TRAILERS  
(DIRECTIVE 98/12/EC AND 2002/78/EC)**

1. Requirement level: Directive 71/320/EEC relating to brakes for vehicles and trailers), as last amended by Directive 98/12/EC, or Directive 2002/78/EC.

2. Covered: Vehicles in Categories M, N and O.

3. Alternative standards: ECE Regulation No. 13.08 for vehicles, and ECE Regulation No. 90.01 for replacement brake lining assemblies.

4. **APPROVAL:**

4.1. Evidence from the vehicle manufacturer or an independent laboratory must be produced, showing that the vehicle meets the above requirements. This does not apply if the vehicle is accompanied by a valid Certificate of Conformity and/or it is marked with a type approval number according to Directive 70/156/EEC, as last amended by Directive 98/14/EC or Directive 2002/78/EC. Vehicles, parts, or technical units may, as an alternative, be approved and marked according to the above requirements.

4.2. The following details must be provided in connection with approving braking systems:

4.2.1. For vehicles with compressed air mechanical braking systems.

The calculations stating the axle manufacturer and axle type, wheel dimensions, brake cylinder and brake membrane size, length of the lever (arm), and the manufacturer of the brake lining, its type description and marking. The make and type description of the vehicle must be apparent.

4.2.2. A principle sketch of the braking systems with sufficiently detailed description of the way they work, detailed drawing(s) of components and the basis for the calculations etc. if the approval authorities feel this is necessary.

4.2.3. Overrun braking systems must be approved by Vegdirektoratet.

5. **COMING INTO EFFECT:**

Category	For type approval of new vehicle type	New registrations
All	October 1, 1999	March 31, 2001

**6. SPARE PARTS — BRAKING SYSTEMS**

As from October 1, 1999, it is illegal to take into use replacement brake lining assemblies containing asbestos.

In respect of vehicles in Categories M<sub>1</sub>, with a total weight of up to 3 500 kg; M<sub>2</sub>, with a total weight of up to 3 500 kg; N<sub>1</sub>, O<sub>1</sub>, and O<sub>2</sub>, and which have been EEC type approved according to Directive 71/320/EEC, as last amended by Directive 98/12/EC and eventually by Directive 2002/78/EC, effective see Paragraph 7, all replacement brake lining assemblies to braking systems being sold or taken into use, must be type approved and marked in accordance with the above requirements.

**7. COMING INTO EFFECT:**

Category, permitted total weight	Directive	Sold or taken into use
Replacement brake lining assemblies for M <sub>1</sub> ≤ 3,500 kg M <sub>2</sub> ≤ 3,500 kg, N <sub>1</sub> , O <sub>1</sub> , and O <sub>2</sub>	98/12/EC	March 31, 2001
Replacement brake lining assemblies for M <sub>1</sub> ≤ 3,500 kg M <sub>2</sub> ≤ 3,500 kg, N <sub>1</sub> , O <sub>1</sub> , and O <sub>2</sub>	2002/78/EC	August 1, 2003

In connection with vehicles type approval before Directive 71/320/EEC, as amended by Directive 98/12/EC, came into effect it is permitted to sell and take into use spare brake linings which do not contravene the regulations in Directive 71/320/EEC, as amended by Directive 98/12/EC, and which were in force at the time the vehicles were taken into use for the first time. The brake linings must under no circumstances contain asbestos.

**SECTION 26-2**

**BRAKING SYSTEMS ON VEHICLES AND TRAILERS  
(THE REGULATIONS IN THIS SECTION DO NOT APPLY TO  
VEHICLES COVERED BY SECTION 26-1)**

- 0.** The regulations in this Section, to the extent they also apply to trailers, only apply to trailers Group O. The regulations may also be used in respect of other trailers if this is requested by the manufacturer or the owner.

**1. REQUIREMENTS**

Vehicles and trailers must have a braking system which meets requirements in Council Directive 71/320/EEC, amended by Commission Directive 74/132/EEC, Commission Directive 75/524/EEC, Commission Directive 79/489/EEC, Commission Directive 85/647/EEC, and Commission Directive 88/194/EEC and possibly as amended by Commission Directives 91/442/EEC, or in the ECE Regulation No. 13, 05 series, with requirements concerning ABS brakes according to the ECE Regulation No. 13, 06 series.

As from October 1, 1999, braking systems containing asbestos are illegal. This applies to the registration of new vehicles and taking replacement brake lining assemblies into use.

ORIGINAL :KJØRETØYFORSKRIFTEN of October 4, 1994

**2. APPROVAL OF BRAKING SYSTEMS****2.1** When approving a braking system the following details must be provided:**2.1.1** Documentation/evidence/guarantee from the vehicle manufacturer or an independent laboratory that the vehicle meets the requirements in Number 1, possibly that the vehicle is e-marked or E-marked according to the standards in Number 1.**2.1.2** For vehicles which must have ABS brakes:

Description of the ABS system giving details concerning number of ABS sensors and at which wheels these are fitted, the number of control valves and which wheels these control, the control principles(s), the lowest friction figures at which the system is effective and at which speed of the vehicle the ABS system ceases to function. The details must be in Norwegian, Swedish, or Danish and be enclosed with the vehicle documents. It is acceptable that the details are contained in the instruction book.

**2.1.3** Vehicles having a compressed air-mechanical braking system

Braking calculation stating the axle manufacturer and axle type, wheel dimensions, the size of the brake cylinder/brake membrane, length of the lever (arm) and the make of the brake lining type description and marking. The make and type description of the vehicle must also be given.

**2.1.4** Principle sketch of the braking systems with a sufficiently detailed description of how they operate, detailed drawing of components and the basis for the calculations etc if the approving authority finds this necessary.**2.2** All overrun braking systems must be approved by Vegdirektoratet. Approved overrun braking systems are listed in Enclosure 1 to Chapter 26.**2.3** Unless otherwise stated all documentation/certificates/guarantees and other information must be in Norwegian, Swedish, Danish, English or German.