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COMMISSION DIRECTIVE

of 18 April 1979

adapting to technical progress Council Directive 71/320/EEC on the approximation of the laws of the Member States relating to the braking devices of certain categories of motor vehicles and their trailers

(79/489/EEC)

(OJ L 128, 26.5.1979, p. 12)

Corrected by:

►**C1** Corrigendum, OJ L 188, 26.7.1979, p. 54 (79/489/EEC)

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COMMISSION DIRECTIVE

of 18 April 1979

adapting to technical progress Council Directive 71/320/EEC on the approximation of the laws of the Member States relating to the braking devices of certain categories of motor vehicles and their trailers

(79/489/EEC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community,

Having regard to Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers ([1]), as last amended by Directive 78/547/EEC ([2]), and in particular Articles 11, 12 and 13 thereof,

Having regard to Council Directive 71/320/EEC of 26 July 1971 on the approximation of the laws of the Member States relating to the braking devices of certain categories of motor vehicles and their trailers ([3]), as last amended by Commission Directive 75/524/EEC ([4]),

Whereas, in view of experience gained and of the state of the art, it is now possible to make requirements more stringent and to match them more closely to actual test conditions;

Whereas the provisions of this Directive are in accordance with the opinion of the Committee on the Adaptation to Technical Progress of the Directives Aimed at the Removal of Technical Barriers to Trade in the Motor Vehicle Sector,

HAS ADOPTED THIS DIRECTIVE:

Article 1

1. Annexes I, II, III, IV, V, VI and IX to Directive 71/320/EEC are hereby amended in accordance with the Annex to this Directive.

2. Pending the entry into force of special provisions concerning wheel anti-locking systems, vehicles of categories M_1, M_2, M_3, N_1, N_2, N_3, O_3 and O_4 which are fitted with these systems shall be subject to the provisions of Directive 71/320/EEC, as last amended by this Directive.

Article 2

1. As from 1 January 1980, no Member State may, on grounds relating to braking devices:

— refuse, in respect of a type of vehicle, to grant EEC type-approval, or to issue the copy of the certificate provided for in the last indent of Article 10 (1) of Directive 70/156/EEC, or to grant national type-approval, or

— prohibit the entry into service of vehicles,

where the braking devices of such type of vehicle or of such vehicles comply with the provisions of Directive 71/320/EEC, as last amended by this Directive.

2. As from 1 October 1980, Member States:

— shall no longer issue the copy of the certificate provided for in the last indent of Article 10 (1) of Directive 70/156/EEC in respect of a

([1]) OJ No L 42, 23. 2. 1970, p. 1.
([2]) OJ No L 168, 26. 6. 1978, p. 39.
([3]) OJ No L 202, 6. 9. 1971, p. 37.
([4]) OJ No L 236, 8. 9. 1975, p. 3.

▼B

type of vehicle of which the braking devices do not comply with the provisions of Directive 71/320/EEC, as last amended by this Directive,

— ►C1 may ◄ refuse to grant national type-approval of a type of vehicle of which the braking devices do not comply with the provisions of Directive 71/320/EEC, as last amended by this Directive.

3. As from 1 October 1981, Member States may prohibit the entry into service of vehicles of which the braking devices do not comply with the provisions of Directive 71/320/EEC, as last amended by this Directive.

4. Notwithstanding paragraphs 1 to 3, Member States shall implement the provisions of item 1.2.1 of Annex IV to Directive 71/320/EEC, as amended by this Directive, only with effect from 1 October 1983.

5. Before 1 January 1980, Member States shall bring into force the provisions necessary in order to comply with this Directive, and shall forthwith inform the Commission thereof.

Article 3

This Directive is addressed to the Member States.

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ANNEX

Amendments to the Annexes to Directive 71/320/EEC as amended by Directive 74/132/EEC and by Directive 75/524/EEC

I. GENERAL PROVISIONS RELATING TO UNITS OF MEASUREMENT

The specifications of Directive 71/320/EEC and of its amending Directives shall be amended in accordance with the provisions of Directive 71/354/EEC as last amended by Directive 76/770/EEC relating to units of measurement.

For this purpose, in the Annexes to Directives 71/320/EEC, 74/132/EEC and 75/524/EEC:

— the word 'weight' shall be replaced by the word 'mass' and the words 'maximum weight' and 'total weight' shall be replaced by the words 'maximum mass',

— the values of force, torque and moment and pressure shall be expressed in the following units:

force: Newton (N),

torque and moment: Newton metre (Nm),

pressure: bar (bar).

The following rounded values shall be used to convert the units used before this Directive took effect into the abovementioned units:

force: 1 kgf or 1 kg = 10 N,

torque and moment: 1 mkgf or 1 mkg = 10 Nm,

pressure: 1 kgf/cm^2 or 1 kg/cm^2 = 1 bar.

Where appropriate, the forces corresponding to the vehicle mass or to parts of this mass (e.g. axle loads) must be used in the calculations prescribed in these Annexes.

II. SPECIAL PROVISIONS

ANNEX I: **DEFINITIONS, REQUIREMENTS, CONSTRUCTION AND FITTING**

Item 2.2.1.2.4 add at the end:

'this provision shall not apply where an auxiliary control permits at least partial actuation of the service braking system, as provided for in Annex II, item 2.1.3.6.'

Item 2.2.1.2.7 the first sentence shall read:

'Certain parts, such as the pedal and its bearing, the master cylinder and its piston or pistons (hydraulic systems), the control valve (pneumatic systems), the linkage between the pedal and the master cylinder or the control valve, the brake cylinders and their pistons (hydraulic and/or pneumatic systems) and the lever-and-cam assemblies of brakes, shall not be regarded as liable to breakage if they are amply dimensioned, are readily accessible for maintenance, and exhibit safety features at least equal to those prescribed for other essential components (such as the steering linkage) of the vehicle.'

Item 2.2.1.13 shall read:

'2.2.1.13. Any vehicle fitted with a service brake actuated by an energy reservoir must, where the prescribed secondary braking performance cannot be obtained by means of this brake without the use of stored energy, be provided with a warning device — in addition to a pressure gauge, where fitted — giving an optical or acoustic signal when the stored energy in any part of the system falls to a value at which, without recharging of the reservoir and irrespective of the load conditions of the vehicle, it is possible to apply the service brake control a fifth time after four full-stroke actuations and obtain the prescribed secondary braking performance (without faults in the service-brake transmission device and with the brakes adjusted as closely as possible). The warning device must be directly and permanently connected to the circuit. When the engine is running

▼B

under normal operating conditions and there are no faults in the braking system, the warning device must give no signal except during the time required for charging the energy reservoir(s) after start-up of the engine.'

Item 2.2.1.19.2 add at the end:

'if this operation is achieved by a valve which is normally at rest, then such a valve may only be incorporated if its correct functioning can easily be checked by the driver, either from within the cab or from outside the vehicle, without the use of tools.'

ANNEX II: **BRAKING TESTS AND PERFORMANCE OF BRAKING DEVICES**

Item 1.3.2.1 the first line shall read:

'The service brakes of trailers of categories O_2, O_3 and O_4 shall be tested in such a manner that …'

After item 2.1.3.5 a new item 2.1.3.6 shall be added:

'2.1.3.6. To check compliance with the requirements of Annex I, item 2.2.1.2.4, a type O test must be carried out, with the engine disengaged, at the test speed specified in item 2.1.1 for the relevant vehicle category. The mean fully developed deceleration on application of either the parking brake or the auxiliary control of the service brake, and the deceleration immediately before the vehicle stops, shall be not less than 1·5 m/s^2. The test shall be carried out with the vehicle laden, and compliance with the requirements shall be deemed to be met if the braking performance has been achieved once. The force exerted on the braking control shall not exceed the specified values. In the case of vehicles of category M_1 or N_1, fitted with a parking brake using friction linings other than those for the service braking system, the test may be carried out from 60 km/h at the request of the manufacturer. In this case, the mean fully-developed deceleration must be not less than 2·0 m/s^2; deceleration immediately before the vehicle stops must not be less than 1·5 m/s^2.'

Item 2.2.1.3 shall read:

'2.2.1.3. Requirements relating to the testing of category O_3 vehicles. The same requirements apply as to category O_2.'

Item 2.2.1.4.1 shall read:

'2.2.1.4.1. The same requirements apply as apply to category O_2; in addition, these vehicles must be subjected to the Type II test.'

Item 2.3.2 shall read:

'2.3.2. In the case of vehicles fitted with compressed air braking devices, the requirements of item 2.3.1 are considered to be satisfied if the vehicle complies with the provisions of Annex III.'

ANNEX III

The title shall read:

'METHOD OF MEASURING THE REACTION TIME FOR VEHICLES FITTED WITH COMPRESSED AIR BRAKING DEVICES'

Item 1.3 shall read:

'1.3. The times determined in implementing the provisions of this Annex shall be rounded to the nearest 10th of a second. If the figure representing the 100ths is five or more, the reaction time shall be rounded up to the next higher 10th.'

The former item 1.4 shall be deleted.

Item 2.4 the last sentence shall be deleted.