II

(Acts whose publication is not obligatory)

COMMISSION

COMMISSION DIRECTIVE

of 30 October 1990

adapting to technical progress Council Directive 77/541/EEC on the approximation of the laws of the Member States relating to safety belts and restraint systems of motor vehicles

(90/628/EEC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community,

Having regard to Council Directive 77/541/EEC of 28 June 1977 on the approximation of the laws of the Member States relating to safety belts and restraint systems of motor vehicles (1), as last amended by the Act of Accession of Spain and Portugal, and in particular Article 10 thereof,

Whereas a comprehensive evaluation of Directive 77/541/EEC has shown that it is possible to improve road safety further by applying practical experience and technological development and taking into account the progress made in the Economic Community for Europe of the United Nations, notably in Regulation No 16, by

— inserting requirements for type-approval of 'harness belts' for special vehicle types,

— inserting requirements for type-approval of safety belts with preloaders,

— specifying installation of appropriate safety belts for all seating positions in all motor vehicle categories with minimal exemptions as necessary,

— introducing a model for a document certifying the actual installation of safety belts in a specific vehicle type to be approved,

— introducing test requirements for height adjustment devices for belts,

and

— introducing more stringent requirements on the conformity of production;

Whereas that experience shows that some existing definitions and requirements have to be adjusted slightly;

Whereas the protection of passengers, especially of passengers in buses and coaches, against ejection in case of an accident must be improved and further modifications to the Directive should be introduced for this purpose;

Whereas everything should be done in order that these modifications can be applied by 31 December 1991 at the latest;

Whereas the adoption of a Directive on the mandatory wearing of safety belts for all occupants of vehicles of less then 3,5 tonnes should be linked to a further modification of the Directive aiming to render mandatory the installation of three-point belts with retractors also for the rear outboard seats of such vehicles;

Whereas the provisions of this Directive are in accordance with the opinion of the Committee on the Adaptation to Technical Progress of the Directives on the removal of technical barriers to trade in motor vehicles,

HAS ADOPTED THIS DIRECTIVE:

Article 1

The Annexes to Directive 77/541/EEC are hereby amended in accordance with the Annex to this Directive.

(1) OJ No L 220, 29. 8. 1977, p. 95.

Article 2

1. With effect from 1 May 1991 no Member State may

(a) on grounds relating to safety belts or restraint systems:

— 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 Council Directive 70/156/EEC [1], or to grant national type-approval, or

— prohibit the entry into service of vehicles

if the safety belts or restraint systems of this type of vehicle or of these vehicles have been approved in accordance with Directive 77/541/EEC, as amended by this Directive;

(b) — refuse to grant EEC component type-approval in respect of a type of safety belt or restraint system, intended for installation in a vehicle, which complies with the requirements of Directive 77/541/EEC, as amended by this Directive,

— prohibit the placing on the market of such safety belts and restraint systems which bear the EEC component type-approval marks prescribed in this Directive.

2. With effect from 1 July 1992 Member States:

(a) — 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 type of vehicle,

— may refuse to grant national type-approval in respect of a type of vehicle,

of which the safety belts or restraint systems have not been approved in accordance with Directive 77/541/EEC, as amended by this Directive;

(b) — may refuse to grant EEC component type-approval in respect of a type of safety belt or restraint system, intended for installation in a vehicle, which does not comply with the requirements of Directive 77/541/EEC, as amended by this Directive.

3. With effect from 1 July 1997 Member States:

— may prohibit the entry into service of vehicles of which the safety belts or restraint system have not been approved in accordance with Directive 77/541/EEC, as amended by this Directive,

— may prohibit the placing on the market of safety belts and restraint systems, intended for installation in a vehicle, which do not bear the EEC component type-approval marks prescribed in the Directive.

Article 3

Member States shall implement the provisions necessary to comply with this Directive before 1 May 1991. They shall forthwith inform the Commission thereof.

When Member States adopt these provisions, these shall contain a reference to this Directive or shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be adopted by Member States.

Article 4

This Directive is addressed to the Member States.

Done at Brussels, 30 October 1990.

For the Commission
Martin BANGEMANN
Vice-President

[1] OJ No L 42, 23. 2. 1970, p. 1.

ANNEX

Annex I is amended as follows:

1.4. Item 1.4: add at the end:

'. . . adjusting device, except in the case of a harness belt buckle'.

Add the following new item 1.8.6:

'1.8.6. *"Belt adjustment device for height"* means a device enabling the position in height of the upper loop of a belt to be adjusted according to the requirements of the individual wearer and the position of the seat. Such a device may be considered as a part of the belt or a part of the anchorage of the belt'.

After item 1.12, a new item 1.12.1 is added:

'1.12.1. *A "front passenger seat"* means any seat where the "foremost H-point" of the seat in question is in or in front of the vertical transverse plane through the drivers R-point'.

Add the following new item 1.22:

'1.22. *"Preloading device"* means an additional or integrated device which tightens the strap in order to reduce the slack of the belt during a crash sequence'.

Item 2.1.2.1: modify the first sentence as follows:

'. . . drawings and,

— in the case of retractors, installation instructions for the sensing device shall be provided.

— for pre-loading devices or systems, a full technical description of the construction and function including the sensing device, if any, describing the method of activation and any necessary method to avoid inadvertent activation shall be provided.

The drawings must show . . .'

Add to item 2.1.2.1:

'If the belt is designed to be fixed to the vehicle structure through a belt adjustment device for height, the technical description shall specify whether or not this device is considered as a part of the belt;'

Add a new item 2.1.4 to read as follows:

2.1.4. 'The competent authority shall verify the existence of satisfactory arrangements for ensuring effective checks on conformity of production before type-approval is granted.'

2.4.2.1. Item 2.4.2.1, modify the last sentence as follows:

'The parts of the buckle likely to contact the body of the wearer shall present a section of not less than 20 cm^2 and at least 46 mm in width, measured in a plane situated at a maximum distance of 2,5 mm from the contact surface.

In the case of harness belt buckles, the latter requirement shall be regarded as satisfied if the contact area of the buckle with the wearer's body is comprised between 20 and 40 cm^2.'

Add at the end of item 2.4.2.3, as amended by Directive 82/319/EEC, the following new sentence [1]:

'In the case of harness belt buckles, this test may be carried out without all the tongues being introduced.'

Modify item 2.4.4 as follows:

[1] OJ No L 139, 19. 5. 1982, p. 17.

'2.4.4. *Attachments and belt adjustment devices for height*

The attachments shall be tested for strength as prescribed in items 2.7.6.1 and 2.7.6.2. The actual belt adjustment devices for height shall be tested for strength as prescribed in item 2.7.6.2 of the present Directive where they have not been tested on the vehicle in application of amended Directive 76/115/EEC relating to anchorages for safety belts. These parts must not break or become detached under the tension set up by the prescribed load.'

Add the following new item 2.4.6:

'2.4.6. *Pre-loading device*

2.4.6.1. After being submitted to corrosion testing in accordance with item 2.7.2, the pre-loading device (including the impact sensor connected to the device by the original plugs but without any current passing through them) shall operate normally.

2.4.6.2. It shall be verified that inadvertent operation of the device does not involve any risk of bodily injury for the wearer.

2.4.6.3. In the case of pyrotechnic pre-loading devices:

2.4.6.3.1. After being submitted to conditioning in accordance with item 2.7.10.2, operation of the pre-loading device must not have been activated by temperature and the device shall operate normally.

2.4.6.3.2. Precautions shall be taken to prevent the hot gases expelled from igniting adjacent flammable materials.'

2.6.1.2. Item 2.6.1.2, add at the end:

'In the case of safety belts with retractors, the retractor shall have been subjected to the dust resistance test laid down in item 2.7.7.3; in addition, in the case of safety belts or restraint system equipped with a pre-loading device comprising pyrotechnic means, the device shall have been subjected to the conditioning specified in item 2.7.10.2.'

Add the following new item 2.6.1.2.3:

'2.6.1.2.3. In the case of a belt intended for use with a belt adjustment device for height, as defined in item 1.8.6 above, the test shall be carried out with the device adjusted in the most unfavourable position(s) chosen by the technical service responsible for testing. However if the adjustment device for height consists of the anchorage itself, as permitted by Directive 76/115/EEC, the technical service responsible for the tests can, if it so wishes, apply the provisions of item 2.7.8.1 hereafter.'

Add the following new item 2.6.1.2.4:

'2.6.1.2.4. In the case of a safety belt with pre-loading device, one of the dynamic tests shall be carried out with the device in operation and the other with the device not in use.

In the first case:

2.6.1.2.4.1. During the test the minimum displacements specified in item 2.6.1.3.2. above, may be reduced by half.

2.6.1.2.4.2. After the test, the force measured as indicated in item 2.7.10.1 shall not exceed 100 daN.'

2.6.1.3.2. Item 2.6.1.3.2, add after the first sentence:

'In case of a harness belt the minimum displacement specified for the pelvis may be reduced by half.' (remainder unchanged).

Item 2.7.6.1. After the first sentence of item 2.7.6.1., as amended by Directive 82/319/EEC, add a new sentence to read:

'In the case of harness belts, the buckle shall be connected to the testing apparatus by the straps which are attached to the buckle and the tongue or two tongues located in an approximately symmetrical way to the geometric centre of the buckle.'

The rest of the paragraph is unchanged.

Item 2.7.6.2, amend to read:

'2.7.6.2. The attachments and any belt adjustment devices for height shall be tested in the manner . . . with the strap completely unwound from the reel.'

Item 2.7.7.2.2, amend the second sentence as follows:

'The design of any such test apparatus shall ensure that the required acceleration is achieved before the webbing is drawn out of the retractor by more than 5 mm and that the withdrawal takes place at an average rate of increase of acceleration of at least 25 g/s and not more than 150 g/s.'

Item 2.7.8.1, add at the end the following new sentences:

'In that case, when the dynamic test has been carried out for a type of vehicle it need not be repeated for other types of vehicle where each anchorage point is less than 50 mm distant from the corresponding anchorage point of the tested belt. Alternatively, manufacturers may determine hypothetical anchorage position for testing in order to enclose the maximum number of real anchorage points. If the belt is equipped with a belt adjustment device for height such as defined in 1.8.6 above, the position of the device and the means of securing it shall be the same as those of the vehicle design.'

Correct the fifth line of the existing item 2.7.8.1 (English text) to read:

' . . .or with the data supplied by the manufacturer . . .'

Modify item 2.7.8.1.1 to add the following two sentences at the beginning:

'In the case of a safety belt or restraint system with pre-loading devices relying on component parts other than those incorporated in the belt assembly itself, the belt assembly shall be mounted in conjunction with the necessary additional vehicle parts on the test trolley in the manner prescribed in items 2.7.8.1.2 to 2.7.8.1.6.

Alternatively, in the case where those devices cannot be tested on the test trolley, the manufacturer may demonstrate by a conventional frontal impact test at 50 km/h in conformity with ISO procedure 3560 (1975/11/01 — Road vehicles — Frontal fixed barrier collision test method) that the device complies with the requirements of the Directive.'

Item 2.7.9.2. Amend the second sentence of item 2.7.9.2, as amended by Directive 82/319/EEC, to read:

'A load shall be applied to the buckle by direct traction via the straps tied to it so that all the straps are subjected to the force of 60/n daN; "n" is the number of straps linked to the buckle when it is in a locked position, its minimum is deemed to be 2.'

Add the following new item 2.7.10:

'2.7.10. *Additional tests on safety belts with pre-loading devices*

2.7.10.1. The pre-loading force shall be measured in less than four seconds after the impact as close as possible to the contact point with the manikin on the free length of the strap between the manikin and the pre-loading device or sash guide, if any, the manikin having been replaced in its originally seated position if necessary.

2.7.10.2. *Conditioning*

The pre-loading device may be separated from the safety belt to be tested and kept for 24 hours at a temperature of 60 ± 5 °C. The temperature shall then raised to 100 ± 5 °C for two hours. Subsequently it shall be kept for 24 hours at a temperature of − 30 ± 5 °C. After being removed from conditioning, the device shall warm up to ambient temperature. If it has been separated it shall be fitted again to the safety belt.'

Renumber item 2.8 to read:

'2.8. **Conformity of production**

2.8.1. Any safety belt or restraint system approved under this Directive shall be so manufactured as to conform to the type approved by meeting the requirements set forth in 2.3, 2.4, 2.5, 2.6 and 2.7 above.

2.8.2. In order to verify that the requirements of item 2.8.1 are met, suitable controls of the production shall be carried out.