

# COMMISSION OF THE EUROPEAN COMMUNITIES

COM(89) 573 final

Brussels, 22 November 1989

Proposal for a  
COUNCIL DIRECTIVE

amending, with a view to fixing certain maximum authorized dimensions  
for road trains, Directive 85/3/EEC on the weights, dimensions and  
certain other technical characteristics of certain road vehicles

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(presented by the Commission)

consist.

## EXPLANATORY MEMORANDUM

### General comments

#### Introduction

1. On 18 July 1989 the Council adopted Directive 89/461/EEC amending Directive 85/3/EEC on weights and dimensions and other characteristics of lorries.  
This amendment fixed the load length of an articulated vehicle and at the same time increased the total length by one meter to 16.5m.  
The main reason for Directive 89/461/EEC was to stop the reduction in the space reserved for the driver and the coupling device caused by the tendency to make vehicles more productive by proposing a maximum usable load length within the total length imposed by Directive 85/3.  
By the increase of the total permitted length of the articulated vehicle to 16.5m it was possible to take into account the load lengths that were possible within the 15.5m by application of space saving methods as described above.
2. For road trains similar technical developments as for the articulated vehicles give rise to additional legislation.

The basic problem is similar:

- Within the legally permitted total length of 18 m for road trains technical development has, in order to gain loading space, led to short cabins and short coupling mechanisms between truck and trailer.
- Disadvantages of ultra short cabins for the comfort and safety of drivers were the subject of earlier discussions concerning articulated vehicles.  
As regards the use of so called topsleepers the opinions as expressed by employers and trade unions in transport differ widely.

The employers view is that top sleeper vehicles constitute a modest part only of total heavy vehicles (potentially 9 %). A large majority of drivers jobs will not necessitate the use of top sleepers. Also, individual preferences of drivers can be respected as in the total driver population there are sufficient drivers able and willing to drive top sleeper vehicles.

The trade unions have serious objections as regards the use of topsleepers because of accessibility, ventilation, safety in case of accidents or fire and feelings of claustrophobia by certain drivers.

- The technology of flexible coupling systems has in some cases led to a "theoretical" distance of 8 to 15cm between truck and trailer. This distance can be increased sometimes from the cabin, if necessary, by extending the length of the coupling itself or by a system that moves the container on the trailer backwards by means of a sledge.

It is obvious that a distance of 15cm can only be maintained on a flat and straight route so the total length of the combination will in practice often be considerably more than 18m.

- The extreme result of using short cabins and coupling devices is a vehicle with a total length available for loading of 16.40m which still theoretically meets the overall length of 18m.

It is clear that such a vehicle has economic advantages and that this concept will have a quick and large proliferation if no additional legislation is adopted. Also companies and vehicle manufacturers that have serious objections as regards technical and social aspects of such vehicles will be forced to use them and to produce them in order to stay competitive.

The aim of this Proposal for a Directive is to complement the Community legislation in order to stop this development.

## 2. Legal aspects

Directive 85/3/EEC allows the free circulation in international traffic of road trains with a maximum length of 18m.

On the basis of the Directive 85/3 as in force now, no ultra short cabins with topsleepers can be forbidden. Member States that do so in their domestic legislation disadvantage their own operators in comparison with foreign operators that enter their territory.

As regards the flexible coupling mechanism the legal position is less clear. A road train that is 18m long if stationary but that exceeds this length regularly when it moves does not reflect the spirit of Directive 85/3 that lays down length limitations not for vehicles on the parking place but for vehicles in traffic.

The proposal for an amendment to Directive 85/3 has to take into account the legal position of vehicles that are already on the road and that were built under the original legal protection of 85/3.

However if by introducing new legislation from a certain date new concepts are less competitive than the "old" ones then a situation will be established which is undesirable and difficult to enforce.

### 3. Technical aspects

The total length of a road train is the sum of

- A) cabin length
- B) coupling distance between truck and trailer
- C) total length available for loading

#### Point A

On going discussions between the social partners will establish minimum standards for the drivers' cabin with or without a bed.

In Directive 89/461/EEC a method is adopted of ensuring enough space for a comfortable cabin within the total length without fixing the details.

Reasons for this method are as follows:

- . Fixing a minimum cabin dimension would lead to the manufacture of only the minimum requirements; economic pressures would ensure this. Manufacturers that wanted to use extra cabin space for comfort or safety could only do so by reducing load length.
- . Assuming that certain accommodations for sleeping (small beds, top sleeper) are not acceptable, it will still be very difficult to control the use of them. Nobody can be prohibited from constructing a small space on the roof of a daycab. It will be impossible to control if this space is used for resting or sleeping; it is even impossible to control if a driver sleeps on his seat !  
A much better approach is to discourage this practices by taking away the incentive of creating more loading space by application of short cabins.  
Once these standards are agreed they will be compatible with legislation in Directive 89/461/EEC which is aimed at ensuring that enough room is reserved for the driver's cab.

There are no arguments why the cabin of a road train should differ from the cabin of an articulated vehicle. Manufacturers will like to apply the same models and drivers work under similar conditions.

The space reserved for the cabin in Directive 89/461/EEC can be calculated as follows :

total available length:	16.50 m
minus distance from fifth wheel to the rear of the semi-trailer:	- 12.00 m
minus forward clearance of semi-trailer:	- 2.04 m
minus free space between tractor and semi-trailer (according to ISO standard 1726):	- <u>0.20 m</u>

So available space for the cabin from front to back wall:	2.26 m
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Applying the same cabins for road trains means that 2.26 m should be available.

However, for the road train an additional 0.10 m or so should be added for cab clearance, driver safety, roofmounted vertical exhaust and necessary space for picking up the swap body. This brings the total necessary length to 2.35 m.

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#### Point B

The length of the coupling device depends on the technology that is applied. For couplings of road trains no ISO standards like for the articulated vehicles are available.

The normal coupling device requires a coupling distance of around 1.5 m. By short coupling devices this distance can be reduced to 1 m and if a centre axle trailer is used to 0.7 m.

The use of extendable couplings or other technology that lengthen the total length of the combination when driving should not be taken into account in this calculation. These mechanisms have not yet been proven to be reliable under all circumstances and are very costly. In so far as they are invented only to bypass the international agreed length limits their use should be discouraged by taking away the incentives in that respect.

#### Point C

The total load length is the third element that determines the overall length.

As argued above a minimum space of 2.35 m should be reserved for the cabin including the clearance and a space of 0.70 m is necessary for the shortest non extendable coupling mechanism.

Applying the same method as used in Directive 89/461/EEC for the articulated vehicle means that overall length and loading length must be fixed in such a way that enough space for cabin and coupling is guaranteed.

This means that the overall length of the road train should be fixed at 2.35 m longer than the load length including the coupling distance between truck and trailer and moreover that the overall length should be fixed at 3.05 m longer than the load length.

In Directive 89/461/EEC for articulated vehicles the maximum load length that was feasible under the old limit could be taken into account by increasing the overall length with 1 m from 15.5 m to 16.5 m.

At present some road trains, though with extendable couplings, operate with a load length of  $2 \times 8.22 \text{ m} \approx 16.45 \text{ m}$

Taking this load length into account would require a total length of  $16.45 + 3.05 = \underline{19.50 \text{ m}}$ .

This would mean an increase of almost 9 % of the length of the longest combination on the road which is politically unacceptable for most governments of the Community.

Starting from the other side, the longest acceptable combination for the majority of the Member States seems to be 18.35 m bearing in mind that most Member States allow at present a two percent tolerance on the 18 m limit.

Calculating backwards this means that the maximum available load length for a road train should be fixed on  $18.35 - 3.05 = \underline{15.30 \text{ m}}$ . Any load length above this number would implicate an increase of the overall length above the 18.35 m.

An additional argument for this length is the great problem that could be provoked for the transit traffic through Austria and Switzerland if a longer combination was permitted in the Community.

The important reference in the field of load length are the standard lengths of swap bodies that at present are used.

In the CEN working group the following lengths for general purpose swap bodies class C were approved:

7150, 7420 and 7820mm.

The first length 7150mm is the most frequently used at present. The 7420mm length was especially promoted by Sweden as a good logistic solution.

Standardization of the swap bodies of 8220mm which are also on the road now, has not yet been considered by CEN.

A maximum load length of 15.30 m will allow transport of the following combinations of standard swap bodies and containers:

- 2 x 6.058 m (20 ft. container)
- 2 x 7.15 m
- 2 x 7.42 m
- 1 x 6.058 m + 1 x 7.82 m
- 1 x 7.15 m + 1 x 7.82 m
- 1 x 6.058 m + 1 x 8.22 m
- 1 x 7.42 m + 1 x 7.82 m

Transport of 2 x 7.82 m swap bodies would only be possible if the total length was increased to  $15.65 + 3.05 = 18.70$  m.

For the transport of 2 swap bodies of 8.22 m the above calculated increase to 19.50 m would be necessary.

Both options are not acceptable for reasons of road safety and public acceptance. Therefore transitional measures should be taken for these swap bodies which are now on the road.

#### 4. Conclusion

The following options are possible as regards additional Community legislation:

a) the "zero" option: no action or no agreement

Result: A quick proliferation of ultra short cabins and complex flexible coupling systems for international transport.

b) Fixation of loading length and the overall length of road trains.

This additional legislation for lengths of road trains should

- . take away incentives for short cabins,
- . be considered in relation with legislation for artics,
- . make clear that extendable couplings do not give advantages for the load length,
- . take into consideration the standard swap bodies
- . take into consideration the current situation.

Contents of the proposal

5. Article 1 of Annex I of Directive 85/3/EEC will therefore be amended on the following points:
- The maximum authorized length of a road train will be increased from 18.00 m to 18.35 m.
  - The total load length of the combination of truck and trailer will be fixed by prescribing a maximum length of 15.30 m for the sum of the load lengths of truck and trailer.
  - The sum of the total load length of a combination of truck and trailer and the distance between truck and trailer will be fixed on 16.00 m.
6. A new Article 4b is inserted in Directive 85/3/EEC which will allow the use of existing road trains that do not comply with the provisions on total load length on condition that these vehicles do not exceed the "old" maximum authorized length of 18 m.

In order to avoid a permanent advantage of old combinations that were built with more load length than allowed in the proposal this exemption is limited until 1 January 1995.



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THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 75 thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas, in order to make combined vehicles more productive, manufacturers are proposing a maximum usable volume within the constraints imposed by Council Directive 85/3/EEC (4), as last amended by Directive 89/461/EEC (5);

Whereas this increase in the usable volume involves a reduction in the space reserved for the driver and in the space between the truck and the trailer by means of special coupling devices;

Whereas there is a consequent deterioration in the comfort and safety of the driver's working area;

Whereas the current standards should be improved so as to lead to a better balance between the rational and economic use of commercial road vehicles and the requirements of road safety while ensuring that drivers have enough room;

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(1) OJ No

(2) OJ No

(3) OJ No

(4) OJ No L 2, 3.1.1985, p. 14.

(5) OJ No L 226, 3.8.1989, p. 7.

Whereas the incentives for increasing loading space by the use of short cabins with top mounted sleepers should be removed;

Whereas the new fixed dimensions will enable the use of a drivers' cabin with a sleeping place behind the drivers' seat of which the effective width is about 80 cm,

HAS ADOPTED THIS DIRECTIVE:

Article 1

Directive 85/3/EEC is hereby amended as follows:

1) The following Article is inserted:

"Article 4b

Road trains put into circulation before 1 July 1990 which do not comply with the new specifications contained in points 1.7 and 1.8 of Annex I shall until 1 January 1995 be deemed to comply with such specifications for the purposes of Article 3(1) if they do not exceed the total length of 18,00 m."

2) Point 1.1 of Annex I is replaced by the following:

"1.1. Maximum length

- motor vehicle	12,00 m
- trailer	12,00 m
- articulated vehicle	16,50 m
- road train	18,35 m
- articulated bus	18,00 m".

3) The following points are inserted in Annex I:

1.7. Maximum distance measured parallel to the longitudinal axis of the road train from the foremost point of the loading area behind the cabin to the rearmost point of the trailer of the combination, minus the distance between the rear of the truck and the front of the trailer ..... 15,30 m.

1.8. Maximum distance measured parallel to the longitudinal axis of the road train from the foremost point of the loading area behind the cabin to the rearmost point of the trailer of the combination ..... 16,00 m.

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Article 2

Member States shall take the measures necessary to comply with this Directive not later than 1 January 1991. They shall forthwith inform the Commission thereof.

The provisions adopted pursuant to the first paragraph shall make express reference to this Directive.

Member States shall communicate to the Commission the provisions of national law which they adopt in the field governed by this Directive.

Article 3

This Directive is addressed to the Member States.

Done at .....

For the Council  
The President

COMPETITIVENESS AND EMPLOYMENT IMPACT STATEMENT

I. What is the main reason for introducing the measure ?

This proposal concerns the fixation of a maximum authorized load length of road trains and an increase of the maximum authorized overall length from 18,00 to 18,35 m.

This total package is introduced in order to guarantee sufficient space for the cabin and the coupling device within the total length of the road train.

This proposal is the logical follow-up of a similar Directive 89/461/EEC by which the load length of semi trailers was fixed in order to guarantee enough length for a comfortable drivers' cabin and a reliable coupling mechanism for articulated vehicles.

However, it will not be possible to increase the admitted overall length of road trains in such a way that all existing load lengths will be covered by the new legislation.

Therefore an article has been incorporated allowing all existing road trains that do not meet the new restrictions on load length to be used in international traffic until 1 January 1995.

II. Features of the business in question

All enterprises which use these vehicles for transfrontier operations and vehicle manufacturers.

III. What obligations does this measure improve directly on businesses?

Road trains used in international traffic shall be complied with the provisions of this proposal.

IV. What indirect obligations are national, regional or local authorities likely to impose on business ?

Implementation of the obligations as described under III.

V. Are there any special provisions in respect of SME's ?

None.

VI. What is the likely effect on :

a) The competitiveness of business

The internal competitiveness of enterprises using road trains will be equilized by prescribing load lengths.

b) Employment

Positive

VII. Have the relevant representative organisations been consulted ?

The representative organisations of vehicle manufacturers, operators and unions have been consulted. Their opinions are as follows :

Vehicle manufacturers and operators want a greater overall length and the use of short cabins with top-sleepers in limited cases in order to accomodate load lengths that are used now by the application of ultra short cabins and flexible couplings.

The Unions are against the use of top sleepers.

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