COMMISSION OF THE EUROPEAN COMMUNITIES

COM(91) 240 final - SYN 349

Brussels, 19 July 1991

Proposal for a

COUNCIL DIRECTIVE

RELATING TO SPEED LIMITATION DEVICES
OF
CERTAIN CATEGORIES OF MOTOR VEHICLES

(presented by the Commission)

EXPLANATORY MEMORANDUM

I. BACKGROUND

1. The implementation of the EEC type approval procedure for motor vehicles and their trailers covered by Council directive 70/156/EEC of 6 February 1970[1] comprises especially the adoption of the last separate directives for passenger cars (tyres, masses and dimensions, safety glazing). The Commission has submitted proposals for this reason in January 1990. Furthermore the framework directive assigns the adoption of special provisions for goods vehicles, that is to say trucks with a maximum mass exceeding 3,5 t. To take care of the precise and comprehensive content of these provisions it is deemed opportune to adopt in particular harmonized Community requirements, inter alia, masses and dimensions (items 2.2, 2.4, 2,6 and 2,8 of Annex II), speed limiters and external projections of cabs (item 12.4 of Annex II) as special safety provisions for goods vehicles.

2. The European Parliament has adopted, on the 13 March 1984, a resolution on the introduction of a programme of Community measures to promote road safety[2] and on the 18 February 1986 another resolution on common measures to reduce road accidents as part of the Community's programme for Road Safety Year 1986[3]. The Council and the Commission are asked by these resolutions to take the necessary measures with the aim of promoting road safety.

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1) OJ n° L 42, 23.2.1970, p. 1

2) OJ n° C 104, 16.4.1984, p. 38

3) OJ n° C 66, 24.3.1986, p. 35

3. In view of the entry into force of the Single European Act and of the aim of a single internal market to be achieved by the end of 1992, it is now urgent that the remaining measures that are needed in order to complete EEC type approval should be adopted.

4. The legal/administrative procedure put forward in the enacting terms of these proposals does not depart from that laid down in framework directive 70/156/EEC that is currently in force except as regards the procedure for adaptation to technical progress, whereby the Regulatory Committee has been replaced by the Advisory Committee. Indeed, the Commission intends to apply the provisions of the Single Act, which provide for the delegation of power to the Commission in order to proceed with this task.

5. With regard to the other options, such as that of the method of harmonization (total or optional), the Commission is still applying the solutions currently in force.

   However, the Commission does not intend to neglect this important matter; considering that the total harmonization will be essential in order to fully achieve the large single market, it intends to put forward relevant proposals when the framework directive 70/156/EEC is next amended.

II. REASONS FOR AND CONTENT OF THE PROPOSALS

6. Speed limiters for heavy trucks and coaches

The Commission was asked by the resolutions 1984 and 1986 of the European Parliament to submit, inter alia, appropriate provisions for the obligatory fitting of speed limiters in heavy goods vehicles. The mandatory equipment of road vehicles with these devices is considered to improve road safety, to reduce the severity of injuries in the case of accidents and to achieve a reduction of air pollution and fuel consumption.

This draft proposal for a Council directive is mainly based on the corresponding draft ECE Regulation (Economic Commission for Europe of the United Nations) which had been recently approved by the Contracting Parties of the 1958 Agreement relating to uniform criteria for homologations of vehicle parts and their mutual recognition by the contracting parties. The speed limits at which the speed limiters have to be set for certain categories of motor vehicles correspond to those values laid down in a proposal for a Council directive relating to speed limitations for certain categories of motor vehicles in the Community[4)]

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4) COM(88)706 final, 11.1.1989

PROPOSAL for a
COUNCIL DIRECTIVE
RELATING TO SPEED LIMITATION DEVICES
OF
CERTAIN CATEGORIES OF MOTOR VEHICLES

THE COUNCIL OF THE EUROPEAN COMMUNITIES

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100a thereof,

Having regard to the proposal from the Commission,[1]

In cooperation with the European Parliament,[2]

Having regard to the opinion of the Economic and Social Committee.[3]

Whereas it is important to adopt measures with the aim of progressively establishing the internal market over a period expiring on 31 December 1992; whereas the internal market shall comprise an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured;

Whereas the technical requirements which motor vehicles must satisfy pursuant to national laws relate, inter alia, to speed limitation of certain categories of vehicles;

Whereas these requirements differ from one Member State to another; whereas it is therefore necessary that all Member States adopt the same requirements either in addition to or in place of their existing rules in order to allow, in particular, the EEC type-approval procedure which was the subject of Council

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1 OJ N° C

2 OJ N°C

3 OJ N°C

Directive 70/156/EEC of 6 February 1970 on the approximation of the Laws of Member States relating to the type-approval of motor vehicles and their trailers[4], as last amended by Directive 87/403/EEC,[5] to be applied in respec of each type of vehicle;

Whereas, with the view of improving road safety and reducing the severety of injuries in cases of accidents with heavy goods vehicles and buses, it is considered urgently necessary to fit speed limitation devices to these categories of motor vehicles;
Whereas in respect of environment and economy a reduction of air pollution a fuel consumption can be achieved;

whereas in all cases where the Council confers powers upon the Commission to implement rules laid down in the motor vehicle sector it is appropriate to provide for a procedure of prior consultation between the Commission and the Member States within an Advisory Committee;

HAS ADOPTED THIS DIRECTIVE:

Article 1

For the purpose of this Directive:
"vehicle" means any motor vehicle of category M_3, N_3 and N_2 exceeding a maximum authorized mass of 10 tonnes, as defined in Annex I to Directive 70/156/EEC, intended for use on the road, having at least four wheels and a maximum design speed exceeding 25 km/h;

"speed limitation device" means a speed limiter for which type approval of a separate technical unit within the meaning of Article 9a of Directive 70/156/ may be granted.

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4 OJ N° L 42, 23.2.1970, p.1

5 OJ N° L 220, 8.8.1987, p.44

Article 2

Member States may not refuse :

- EEC type approval or national type approval for a vehicle, or refuse or prohibit the sale, registration, entry into service or use of a vehicle on grounds relating to its equipment with speed limitation devices,

- EEC technical unit type approval or national approval for a speed limiting device, or prohibit the sale or use of a speed limiting device, if the requirements of the Annexes to this Directive are satisfied.

Article 3

Any amendments necessary to adapt the requirements of the Annexes to this Directive to technical progress shall be adopted by the Commission in accordance with the procedure laid down in Article 4.

Article 4

The Commission shall be assisted by the committee established under Article 12 of Directive 70/156/EEC.

The representative of the Commission shall submit to the committee a draft of the measures to be taken. The committee shall deliver its opinion on the draft within a time-limit which the Chairman may lay down according to the urgency of the matter, if necessary by taking a vote.
The opinion shall be recorded in the minutes; in addition, each Member State shall have the right to ask to have its position recorded in the minutes.
The Commission shall take the utmost account of the opinion delivered by the committee. It shall inform the committee of the manner in which its opinion has been taken into account.

Article 5

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive not later than 1 October 1992. They shall forthwith inform the Commission thereof.

2. 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 6

With effect from 1 October 1993 Member States :

- may no longer issue the document provided for in Article 10 (1), third indent, of Directive 70/156/EEC in respect of a type of vehicle of which the speed limitation devices do not meet the requirements of this Directive,

- may refuse to grant national type-approval in respect of a type of vehicle of which the speed limitation devices do not comply with the provisions of this Directive.

Article 7

This directive is addressed to the Member States.

Done at Brussels, ... 1992

For the Council

For the President

ANNEX I

1. SCOPE

1.1. This Directive applies to speed limitation devices, EEC type-approved as separate technical units for motor vehicles, and the equipment of motor vehicles, as described in Article 1, with these approved devices or similar speed limitation systems meeting the requirements of the Annexes to this Directive.

Motor vehicles, whose maximum design speed is lower than the set speed as prescribed in 7.2.1 for certain vehicle categories, need not to be fitted with speed limitation devices or systems.

The purpose of this Directive is to limit to a specified value the maximum road speed of heavy goods and passenger carrying vehicles. This is achieved by a speed limitation device or an onboard speed limitation system whose primary function is to control the fuel feed to the engine.

2. DEFINITIONS

2.1. For the purpose of this Directive:

2.2. "Limitation speed V" means the maximum speed of the vehicle such that its design or equipment does not permit a response after a positive action on the accelerator control;

2.3. "Set speed" means the intended mean vehicle speed when operating in a stabilized condition;

2.4. "Stabilized speed" means the vehicle speed when operation in the conditions as specified in 1.1.4.2.3 of Annex III.

2.5. "Speed limitation device" means a device whose primary function is to control the fuel feed to the engine in order to limit the vehicle speed to the specified value.

2.6. "Unladen mass" means the mass of the vehicle in running order, including coolant, oils, fuel, tools and spare wheel on board, where applicable.

2.7. "Vehicle type" means vehicles which do not differ in such essential respects as :

2.7.1. - make and type of the speed limitation system or the speed limitation device, if any;

2.7.2. - range of speeds at which the limitation may be set within the range established for the tested vehicle;

2.7.3. - maximum engine power to unladen mass ratio less than or equal to that of the tested vehicle; and

2.7.4. - highest ratio of engine speed to vehicle speed in top gear less than that of the tested vehicle.

2.8. "Type of speed limitation device" means speed limitation devices which do not differ with respect to the essential characteristics such as :

- make and type of the device;
- range of speed values at which the speed limitation device may be set;
- method used to control the fuel feed of the engine.

3. APPLICATION FOR EEC VEHICLE TYPE-APPROVAL

3.1. The application for approval of a vehicle type with regard to speed limitation shall be submitted by the vehicle manufacturer or by his duly accredited representative.

3.2. It shall be accompanied by the under-mentioned documents in triplicate and by the following particulars :

3.2.1. A detailed description of the vehicle type and of vehicle parts related to the speed limitation, comprising the particulars and documents referred to in Annex II, Appendix 1.

3.2.2. A vehicle representative of the type to be approved shall be submitted to the technical service responsible for conducting the approval tests.

3.2.3. A vehicle not comprising all the components proper to the type may be accepted for test provided that it can be shown by the applicant to the satisfaction of the competent authority that the absence of the components omitted has no effect on the results of the verifications, so far as the requirements of this Directive are concerned.

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

4. EEC TYPE-APPROVAL

4.1. If the vehicle submitted for approval pursuant to this Directive meets the requirements of item 7 below, approval of that vehicle type shall be granted.

Notice of approval or of extension or of refusal of approval of a vehicle type pursuant to this Directive shall be communicated to the Member States by means of a form conforming to the model in Annex II, Appendix 2 to this Directive.

4.2. An approval number shall be assigned to each type approved. The same Member State may not assign the same number to another vehicle type.

5 APPLICATION FOR TECHNICAL UNIT EEC TYPE-APPROVAL OF A SPEED LIMITATION DEVICE

5.1. The application for EEC type-approval of an speed limitation device as a technical unit must be submitted by the manufacturer of the speed limitation device or by his duly accredited representative.

5.2. For each type of speed limitation device the application must be accompanied by :

5.2.1. documentation in triplicate giving a description of the technical characteristics of the speed limitation device and the method of its installation on each make an type of vehicle for which the speed limitation device is intended to be installed;

5.2.2. five samples of the type of speed limitation device : the samples must be clearly and indelibly marked with the applicant's trade name or mark and the type designation;

5.2.3. a vehicle or an engine (in the case of testing on an engine bench) fitted with the speed limitation device to be type approved, chosen by the applicant in agreement with the technical service responsible for conducting approval tests.

5.3. The competent authority shall verify the existence of satisfactory arrangements for ensuring effective control of the conformity of production of the speed limitation device before type approval is granted.

6. **APPROVAL**

6.1. If the speed limitation device submitted for approval pursuant to this Directive meets the requirements of item 7 below, approval of that type of speed limitation device shall be granted.

6.2. An approval number shall be assigned to each type of speed limitation device approved. Its first two digits (00 for the Directive in its original form) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Directive at the time of issue of the approval. The same Member State may not assign the same number to another type of a speed limitation device.

6.3. Notice of approval, or of extension or of refusal of approval of a type of the speed limitation device pursuant to this Directive shall be communicated to the Member States by means of a form conforming to the model in Annex II, Appendix 4 to this Directive.

6.4. There shall be affixed, conspicuously and in a readily accessible place specified on the approval form, to every speed limitation device conforming to a type of speed limitation device approved under this Directive an international approval mark consisting of :

6.4.1. A rectangle surrounding the letter "e" followed by the distinguishing number of the country which has granted approval and

6.4.2. the approval number, as given on the EEC type-approval certificate (see Annex II, appendix 4), near to the rectangle of the approval mark.

6.5. The approval mark shall be clearly legible and indelible.

6.6. Annex II, Appendix 5 to this Directive gives an example of the arrangement of the approval mark.

7. **REQUIREMENTS**

7.1. General

7.1.1. The speed limitation must be such that the vehicle in normal use, despite the vibrations to which it may be subjected, complies with the provisions of this Directive. The speed limitation device shall be so designed, constructed and assembled as to enable the vehicle in normal use, fitted with the speed limitation device, to comply with the provisions of this Directive.

7.1.2. In particular, the speed limitation device of the vehicle must be so designed, constructed and assembled as to resist corrosion and aging phenomena to which it may be exposed and to resist tampering.

7.1.2.1. The limitation threshold must not, in any case, be capable of being increased or removed temporarily or permanently on vehicles in use. The inviolability shall be demonstrated to the technical service with documentation analysing the failure mode in which the system will be globaly examined.
The analysis shall show, taking into account the different states taken by the system, the consequences of a modification of the input or output states on the functioning, the possibilities to obtain these modifications by failures or by voluntary violation and the possibility of their occurrence. The analysis level will be always to the first failure.

7.1.2.2. The speed limitation function, the speed limitation device and the connections necessary for its operation, except those essential for the running of the vehicle, shall be capable of being protected from any unauthorized adjustments or the interruption of its energy supply by the attachment of sealing devices and/or the need to use special tools.

7.1.3. The speed limitation function and the speed limitation device shall not actuate the vehicle's service braking system. A permanent brake (e.g. retarder) may be incorporated only if it operates after the speed limitation function or the speed limitation device has restricted the fuel feed to the minimum fuel position.

7.1.4. The speed limitation function or the speed limitation device must be such that it does not affect the vehicle's road speed if a positive action on the accelerator is applied when the vehicle is running at its set speed.

7.1.5. The speed limitation function or the speed limitation device may allow normal accelerator control for the purposes of gear changing.

7.1.6. No malfunction shall result in an increase in engine power above that demanded by the position of the driver's accelerator.

7.1.7. The speed limitation function shall be obtained regardless of the accelerator control used if there is more than one such control which may be reached from the driver's seating position.

7.1.8. The speed limitation function or the speed limitation device shall operate satisfactorily in its electromagnetic environment without unacceptable electromagnetic disturbance for anything in this environment.

7.1.9 All components necessary for the full function of the speed limitation or the speed limitation device shall be energised whenever the vehicle is being driven.

7.2. Special requirements

7.2.1. For the different categories of motor vehicles the limitation speed V shall be set at the following values :

- Category M_3 and N_2 with a maximum authorized mass exceeding 10 tonnes :
  Vset = 100 km/h
- Category N_3 :
  Vset = 80 km/h

7.2.2. This speed limitation may be achieved either by the equipment of the motor vehicles with EEC type-approved speed limitation devices or similar systems on board of the vehicles fulfilling the same speed limitation function.

7.2.3. The set speed shall be indicated on a plate in a conspicuous position in the driver compartment of each vehicle.

8. TEST

The speed limitation tests to which the vehicle or the speed limitation device presented for EEC type-approval is submitted as well as the limitation performances required, are described in Annex III to this Directive.

At the request of the manufacturer and with the agreement of the type approval authority, vehicles whose calculated unlimited maximum speed does not exceed the set speed defined for those vehicles may be exempted from the testing of the Annex III provided the requirements of this Directive are met.

9. MODIFICATION OF THE TYPE OF THE VEHICLE OR THE SPEED LIMITATION DEVICE AND EXTENSION OF EEC TYPE-APPROVAL

9.1. Every modification of the vehicle type or the type of the speed limitation device shall be notified to the administrative department which approved the vehicle type. The department may then either

9.1.1. consider that the modifications made are unlikely to have an appreciable adverse effect and that in any case the vehicle or the speed limitation device still complies with the requirements, or

9.1.2. require a further test report from the technical service responsible for conducting the tests.

9.2. Confirmation or refusal of approval, specifying the alteration, shall be communicated by the procedure specified in paragraph 4.1 above to the Member States.

9.3. The competent authority issuing an extension of approval shall assign a series number to each communication form drawn up for such an extension.

10. CONFORMITY OF PRODUCTION

10.1. Every vehicle or speed limitation device approved under this Directive shall be so manufactured as to conform to the type approved by meeting the requirements set out in item 7 above.

10.2. In order to verify that the requirements of item 10.1 are met, suitable checks of the production shall be carried out.

10.3. The holder of the approval shall, in particular,

10.3.1. ensure the existence of procedures for effective quality control of the vehicle or the speed limitation device;

10.3.2. have access to the testing equipment necessary for checking conformity to each approved type;

10.3.3. ensure that test result data are recorded and that the annexed documents remain available for a period to be determined in agreement with the administrative department;

10.3.4. analyse the results of each type of test, in order to verify and ensure the consistency of characteristics of the vehicle or the speed limitation device, making allowance for permissible variations in industrial production;

10.3.5. ensure that for each type of vehicle or speed limitation device sufficient checks and tests are carried out in accordance with the procedures approved with the competent authority;

10.3.6. ensure that any set of samples or test pieces giving evidence of non-conformity in the type of test in question shall give rise to a further sampling and test. All necessary steps shall be taken to restore conformity of the corresponding production.

10.4. The competent authority which has granted type approval may at any time verify the conformity control methods applied in each production unit.

10.4.1. At every inspection, the test records and production records shall be presented to the visiting inspector.

10.4.2. The inspector may select samples at random to be tested in the manufacturer's laboratory. The minimum number of samples may be determined according to the results of the manufacturer's own checks.

10.4.3. Where the quality level appears unsatisfactory or it seems necessary to verify the validity of the tests carried out in application of item 10.4.2., the inspector shall select samples to be sent to the technical service which conducted the type approval tests.

10.4.4. The competent authority may carry out any test prescribed in this Directive. The normal frequency of inspections authorized by the competent authority shall be one every two years. In cases where unsatisfactory results are found during one of these inspections, the competent authority shall ensure that all necessary steps are taken to restore conformity of production as rapidly as possible.

11. PENALTIES FOR NON-CONFORMITY OF PRODUCTION

11.1. The approval granted in respect of a vehicle type or type of a speed limitation device pursuant to this Directive may be withdrawn if the requirements laid down in item 7 above are not complied with.

11.2. If a Member State withdraws an EEC type-approval it has previously granted, it shall forthwith so notify the other Member States, by means of a copy of the EEC type-approval certificate according to the model set out in the Annex II, Appendix 2 or 4.

ANNEX II

APPENDIX 1

Information document No.....
in accordance with Annex 1 of Council Directive 70/156/EEC
relating to EEC Type-Approval of the motor vehicle type
with regard to speed limitation or
to equipment of speed limiting devices (Directive .../.../EEC)

The following information, if applicable, shall be supplied in triplicate and shall include a list of contents. Drawings, if any, shall be supplied in appropriate scale and in sufficient detail on size A4 or folded to that size. In the case of micro-processor controlled functions supply relevant performance-related information.

0. GENERAL

0.1. Make (name of undertaking) :

0.2. Type and commercial description (mention any variants) :

0.3. Means of identification of type, if marked on the vehicle[b] :

0.3.1. Location of that marking :

0.4. Category of vehicle[c] :

0.5. Name and address of manufacturer :

0.6. Name and address of manufacturer's authorised representative (if any):

0.7. Location of statutory plates and inscriptions and method of affixing
0.7.1. On the chassis :
0.7.2. On the bodywork:

0.8. The serial numbers of the chassis of this type of commence at No. ...

Footnotes, see Annex I to Directive 70/156/EEC, as last amended by Directive 90/..../EEC (doc. III/4141/88 Rev.2)

1. GENERAL CONSTRUCTION CHARACTERISTICS OF THE VEHICLE

1.1. Photographs and/or drawings of a representative vehicle :

1.2. Position and arrangement of the engine :

2. MASSES AND DIMENSIONS[e] (in kg and mm) (refer to drawing where applicable)

2.6. Mass of the vehicle with bodywork in running order, or mass of the chassis with cab if the manufacturer does not fit the bodywork (including coolant, oils, fuel, tools, spare wheel and driver)[p]:

2.8. Technically permissible maximum laden mass stated by the manufacturer :

3. POWER PLANT[r]

3.1. Manufacturer :
3.1.1. Manufacturer's engine code :
(As marked on the engine, or other means of identification)

3.2. Internal combustion engine
3.2.1. Specific engine information
3.2.1.1. Working principle : positive ignition/compression ignition, four stroke/two stroke[1]
3.2.1.3. Engine capacity : ..... cm^{3}[t]
3.2.1.4. Volumetric compression ratio[2]:
3.2.1.8. Maximum net power:.... kW at .... min^{-1}[u]
3.2.1.9. Maximum permitted engine speed as prescribed by the manufacturer: .... min^{-1}
3.2.1.10. Maximum net torque :.. Nm at ... min^{-1}[u]

4. TRANSMISSION[w]:

4.2. Type (mechanical, hydraulic, electric, etc) :

4.5. Gearbox
4.5.1. Type :

4.6. Gear ratios

Gear	Internal gearbox ratios (ratios of engine to gearbox output shaft revolutions)	Final drive ratio(s) (ratio of gearbox output shaft to driven wheel revolutions)	Total gear ratios
1 2 3 ... Reverse			

4.8. Maximum vehicle speed and gear in which this is achieved (in km/h)(x):

6. SUSPENSION

6.2. Tyres and wheels normally fitted
6.2.1. Distribution of tyres to axles and permitted tyre combinations:
6.2.2. Range of tyre sizes :
6.2.3. Upper and lower limits of rolling radii :
6.2.4. Tyre pressure(s) as recommanded by the vehicle manufacturer :
..... kPa
6.2.5. Tyre/wheel combinations(s) :

ANNEX II

APPENDIX 2

MODEL
(maximum format : A4 (210 x 297 mm))
EEC TYPE-APPROVAL CERTIFICATE
(vehicle)

STAMP OF ADMINISTRATION

Communication concerning the
- type approval(1)
- extension of type approval(1)
- refusal of type-approval(1)

of a type of a vehicle with regard to Directive.../.../EEC relating to speed limitation devices or similar speed limitation on board systems of motor vehicles.

EEC type-approval No. : Extension No. :

SECTION I

0.1. Make (name of undertaking) :

0.2. Type and commercial description (mention any variants) :

0.3. Means of identification of type, if marked on the vehicle(b):

0.3.1. Location of that marking :

0.4. Category of vehicle(c) :

0.5. Name and address of manufacturer :

0.6. Name and address of manufacturer's authorised representative (if any):

0.7. Location of statutory plates and inscriptions and methode of affixing
0.7.1. On the chassis :
0.7.2. On the bodywork:

0.8. The serial numbers of the chassis of this type commence at No....

(1) Delete where inapplicable

Footnotes, see Annex I to Directive 70/156/EEC, as last amended by Directive 90/..../EEC (doc. III/4141/88 Rev. 2)

SECTION II

1. Additional information

1.1. Make and type of EEC type-approved speed limitation device(s), if any; approval number(s) :

1.2. Make and type of ... onboard speed limitation system :

1.3. Speed or range of speeds at which the speed limitation may be set : ..... km/h.

1.4. Maximum engine power to unladen mass ratio of the vehicle type:

1.5. Highest ratio of engine speed to vehicle speed in top gear of the vehicle type :

2. Technical department responsible for carrying out the tests:

3. Date of test report :

4. Number of test report:

5. Ground(s) for extending type-approval (where appropriate) :

6. Comments (if any) :

7. Place :

8. Date :

9. Signature :

10. A list of documents making up the type-approval file lodged with the administrative department that has granted type-approval, which may be obtained on request, is attached.

ANNEX II

APPENDIX 3

Information document No...(a)
in accordance with Annex I of Council Directive 70/156/EEC
relating to EEC Type-Approval as a separate technical unit for
the speed limitation device for motor vehicles
(Directive.../.../EEC)

The following information, if applicable, shall be supplied in triplicate and shall include a list of contents. Drawings, if any, shall be supplied in appropriate scale and in sufficient detail on size A4 of folded to that size. In the case of micro-processor controlled functions supply relevant performance-related information.

0. GENERAL

0.1	Make (name of undertaking):
0.2	Type and commercial description (mention any variants):
0.3	Means of identification of type, as marked on the technical unit:
0.3.1	Location of that marking:
0.5	Name and address of manufacturer:
0.6	Name and address of manufacturer's authorised representative (if any):
0.9	Location and method of fixing of the EEC approval mark:
12.8	Speed limitation device
12.8.1	Type of the speed limitation device: mechanical/electrical/electronical[1)]
12.8.2	Measures against tampering of the speed limitation device:
12.8.3	Type of vehicle or engine on which the device has been tested:..... .....
12.8.4	Speed or range of speeds at which the device may be set within the range established for the test vehicle:..... .....
12.8.5	Engine power to unladen mass of ratio of the test vehicle:.....
12.8.6	Highest ratio of engine speed to vehicle speed in top gear of the test vehicle:.....
12.8.7	Type(s) of vehicle(s) on which the device may be installed:..... .....
12.8.8	Speed or range of speeds at which the limiter may be set within the range established for vehicle(s) on which the device may be installed:.....
12.8.9	Engine power to unladen mass ratio of the vehicle(s) on which the device may be installed:.....
12.8.10	Highest ratio of engine speed to vehicle speed in top gear of vehicle(s) on which the device may be installed:.....
12.8.11	Method used to control the fuel feed of the engine:

1) Delete, if not applicable

ANNEX II

APPENDIX 4

MODEL (a)
(maximum format: A4 (210 x 297 mm))

EEC TYPE-APPROVAL CERTIFICATE
(separate technical unit)

STAMP OF
ADMINISTRATION

Communication concerning the
- type-approval[1)]
- extension of type-approval 1)
- refusal of type-approval 1)

of a type of a separate technical unit with regard to Directive (..../..../EEC), relating to the speed limitation device for motor vehicles.

EEC type-approval No.: Extension No.:

SECTION I

0.1 Make (name of undertaking):
0.2 Type and commercial description (mention any variants):
0.3 Means of identification of type, if marked on the separate technical unit (a):
0.3.1 Location of that marking:
0.5 Name and address of manufacturer:
0.6 Name and address of manufacturer's authorised representative (if any):
0.9 location and method of fixing of the EEC approval mark:

1) Delete where inapplicable

SECTION II

1. Additional information
1.1 Speed limitation device: mechanical/electrical/electronical[1)]
1.2 Vehicle type(s) on which the device may be installed:
1.3 Speed or range of speeds at which the limiter may be set within the range established for vehicle(s) on which the device may be installed:
1.4 Engine power to unladen mass ratio of the vehicle(s) on which the device may be installed:
1.5 Highest ratio of engine speed to vehicle speed in top gear of vehicle(s) on which the device may be installed:
2. Technical department responsible for carrying out the tests:
3. Date of test report:
4. Numpber of test report:
5. Ground(s) for extending type-approval (where appropriate):
6. Comments (if any):
7. Place:
8. Date:
9. Signature:
10. A list of documents making up the type-approval file lodged with the administrative department that has granted type-approval, which may be obtained on request, is attached.

(a) The means of identification of type, if used, shall appear only on those technical units covered by the individual directive approval.

If the means of identification of type contains characters not relevant to describe the technical unit types covered by this type-approval certificate, such characters shall be represented in the documentation by the symbol : "?" (e.g. ABC??123??).

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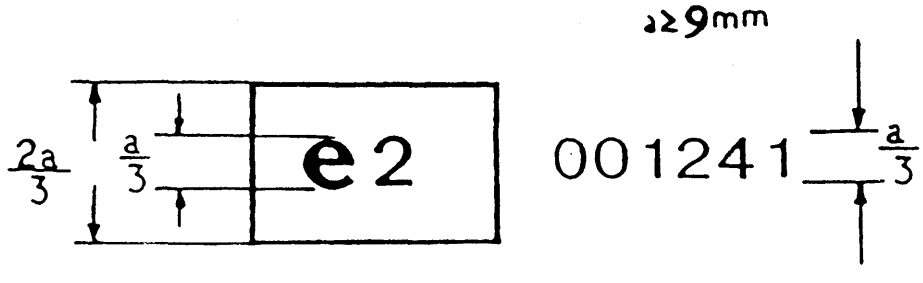
1) Delete where inapplicable

ANNEX II

APPENDIX 5

EXAMPLE OF AN EEC TECHNICAL UNIT TYPE-APPROVAL MARK



The above technical unit type-approval mark, affixed to a speed limitation device, shows that the technical unit concerned was approved in France (e2) pursuant to this Directive under the type-approval number 001241. The first two digits indicate that the speed limitation device was approved according to the original form of this Directive.

ANNEX III

TESTS AND PERFORMANCES

1. **TESTS OF SPEED LIMITATION DEVICE.**

At the request of the applicant for approval tests shall be made in accordance with either 1.1, 1.2 or 1.3 below.

1.1 **Measurement on test track.**

1.1.1. Preparation of the vehicle.

1.1.1.1. A vehicle represenative of the vehicle type to be approved or a device representative of the speed limitation device type as appropriate shall be submitted to the technical service.

1.1.1.2. The settings of the engine of the test vehicle, particularly the fuel feed (carburettor or injection system) shall conform to the specifications of the vehcile manufacturer.

1.1.1.3. The tyres shall be bedded and the pressure shall be as specified by the manufacturer of the vehicle.

1.1.1.4. The vehicle mass shall be the unladen mass as declared by the manufacturer.

1.1.2. Characteristics of the test track.

1.1.2.1. The test surface shall be suitable to enable stabilized speed to be maintained and shall be free from uneven patches. Gradients shall not exceed 2 % and shall not vary by more than 1 % excluding camber effects.

1.1.2.2. The test surface shall be free from standing water, snow or ice.

1.1.3. Ambient weather conditions.

1.1.3.1 The mean wind speed measured at a height at least 1m above the ground shall be less than 6 m/s with gusts not exceeding 10 m/s.

1.1.4. Acceleration test method.

1.1.4.1. The vehicle running at a speed which is 10 km/h below the set speed shall be accelerated as much as possible using a fully positive action on the accelerator control.

This action shall be maintained at least 30 seconds after the vehicle speed has been stabilized. The instantaneous vehicle speed shall be recorded during the test in order to establish the curve of the speed versus the time and during the putting into service of the speed limitation function or of the speed limitation device as appropriate. The accuracy of the speed measurement shall be ± 1 %. The accuracy of the time measurement shall be within 0.1 s.

1.1.4.2. Acceptance criteria for the acceleration test.

The test shall be satisfactory if the following conditions are met:

1.1.4.2.1. The stabilized speed Vstab reached by the vehicle shall be equal or less than the set speed Vset. However a tolerance of 5 % of the Vset value or 5 km/h whichever is the greater is acceptable.

1.1.4.2.2. Transient response (see figure 2 of appendix).

After the stabilized speed is first achieved:

(a) the maximum speed shall not exceed the stabilized speed Vstab by more than 5 %;

(b) the rate of change of speed shall not exceed 0.5 m/s^2 when measured on a period greater than 0.1 s ; and

(c) the stabilized speed conditions specified in 1.4.2.3. shall be attained within 10 s of first reaching of the stabilized speed Vstab.

1.1.4.2.3. Stabilized speed (see figure 2 of appendix).

When stable speed control has been achieved :

(a) speed shall not vary by more than 4 % of the stabilized speed Vstab or 2 km/h whichever is the greater ;

(b) the rate of change of speed shall not exceed 0,2 m/s^2 when measured on a period greater than 0.1 s.

1.1.4.2.4. Tests in acceleration shall be carried out and the acceptance criteria verified for each reduction ratio of gear allowing the speed limit to be exceeded.

1.1.5. Test method at steady speed.

1.1.5.1. The vehicle shall be driven at full acceleration up to the steady speed, then shall be maintained at this speed without any modification on the test basis of at least 400 metres. The vehicle's average speed measurement shall then be repeated on the same test basis, but run in the opposite direction, and under the same procedures.

The stabilization speed for the whole test previously considered is the mean of the two average speeds measured on going trips and on coming back trips of the test basis. The whole test including the calculation of the stabilization speed shall be carried out five times. The speed of measurements shall be carried out with an accuracy of $\pm$ 1 %, the time measurements with an accuracy of 0.1 s.

1.1.5.2. Acceptance criteria for steady speed test.

Tests are judged satisfactory if the following conditions are fulfilled :

1.1.5.2.1. None of the stabilization speeds Vstab obtained shall exceed set speed Vset. However, a tolerance of 5 % of the Vset value or 5 km/h whichever is the greater is acceptable.

1.1.5.2.2. The gap between the extreme stabilization speeds obtained during the tests shall not exceed 3 km/h.

1.1.5.2.3. Tests in steady speed shall be carried out and the acceptance criteria verified for each reduction gear ratio allowing in theory the speed limit to be exceeded.

1.2. Tests on chassis dynamometer

1.2.1. Characteristics of the chassis dynamometer

The equivalent inertia of the vehicle mass shall be reproduced on the chassis dynamometer with an accuracy of ± 10 %. The speed of the vehicle shall be measured with an accuracy of ± 1 %. The time shall be measured with an accuracy of 0.1 s.

1.2.2. Acceleration test method

1.2.2.1. The power absorbed by the brake of the chassis dynamometer during the test shall be set to correspond with the vehicle's resistance to progressive movement at the tested speed(s). This power may be established by calculation and shall be set to an accuracy of ± 10 %. At the request of the applicant, and with the agreement of the competent authority the power absorbed may alternatively be set at 0.4 Pmax (Pmax is the maximum power of the engine). The vehicle running at a speed which is 10 km/h below its set speed shall be accelerated at the maximum possibilities of the engine by using a fully positive action on the acceleration control. This action shall be maintained at least 20 seconds after the vehicle speed has been stabilized. The instantaneous vehicle speed shall be recorded during the test in order to draw the curve of the speed versus time during the putting into service of the speed limitation device.

1.2.2.2. Acceptance criteria for the acceleration test

The test shall be satisfactory if the following conditions are met :

1.2.2.2.1. The stabilized speed Vstab reached by the vehicle shall be equal or less than the set speed Vset. However a tolerance of 5 % of the Vset value or 5 km/h whichever is the greater is acceptable.

1.2.2.2.2. Transient response (see figure 2 of appendix).

After the stabilized speed is first achieved :

(a) the maximum speed shall not exceed the stabilized speed Vstab by more than 5 % ;

(b) the rate of change of speed shall not exceed 0.5 m/s^2 when measured on a period greater than 0.1 s ; and

(c) the stabilized speed conditions specified in 1.2.2.2.3. shall be attained within 10 s of first reaching of the stabilized speed Vstab.

1.2.2.2.3. Stabilized speed (see figure 2 of appendix)

When stable speed control has been achieved :

(a) speed shall not vary by more than 4 % of the stabilized speed Vstab or 2 km/h whichever is the greater ;

(b) the rate of change of speed shall not exceed 0.2 m/s^2 when measured on a period greater than 0.1 s.

1.2.2.2.4. Tests in acceleration shall be carried out and the acceptance criteria verified for each reduction ratio of gear allowing in theory the speed limit to be exceeded.

1.2.3. Test method for steady speed test

1.2.3.1. The vehicle shall be installed on the chassis dynamometer. The following acceptance criteria should be met for power absorbed by the chassis dynamometer varying progressively from the maximum power Pmax to a value equal to 0.2 Pmax. The speed of the vehicle shall be recorded in the full range of power defined above. The maximum speed of the vehicle shall be determined on this range. Test and record defined above shall be made five times.

1.2.3.2. Acceptance criteria for steady speed test

Tests are judged satisfactory if the following conditions are fulfilled :

1.2.3.2.1. None of the stabilization speeds Vstab obtained shall exceed the set speed Vset. However, a tolerance of 5 % of the Vset value or 5 km/h whichever is the greater is acceptable.

1.2.3.2.2. The gap between the extreme stabilization speeds obtained during the test shall not exceed 3 km/h.

1.2.3.2.3. Tests in steady speeds shall be carried out and the acceptance criteria verified for each reduction gear ratio allowing in theory the speed limit to be exceeded.

1.3. Test on engine test bench

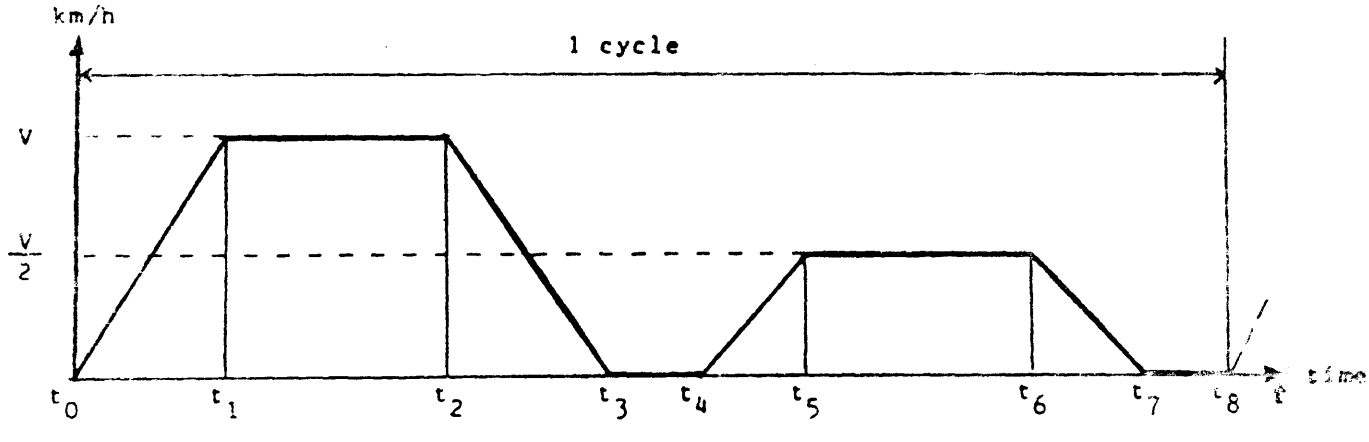
This test procedure can only be used when the applicant can demonstrate to the satisfaction of the technical services that this method is equivalent to the measurement on a test track.

2. <u>ENDURANCE TEST</u>

The speed limitation device shall be submitted to a durability test following the procedure prescribed below. However, this may be omitted if the applicant demonstrate the resistance to aging effects.

2.1. The device is cycled on a bench simulating the attitude and the movement which the speed limitation device would experience on the vehicle.

2.2. A functioning cycle is maintained by means of a control system supplied by the maufacturer. The diagram of the cycle is given below:



$t_0 - t_1 - t_2 - t_3 - t_4 - t_5 - t_6 - t_7$: the time taken to do this operation

$t_1 - t_2$ = 2 seconds
$t_3 - t_4$ = 1 second
$t_5 - t_6$ = 2 seconds
$t_7 - t_8$ = 1 second

Five conditionings are defined hereafter. The speed limitation device (SLD) samples of the type presented for approval shall be submitted to the conditionings according to the table below:

	1st SLD	2nd SLD	3rd SLD	4th SLD
Conditioning 1	X			
Conditioning 2		X		
Conditioning 3		X		
Conditioning 4			X	
Conditioning 5				X

2.2.1. Conditioning 1 : tests at ambient temperature (293 K ± 2 K)
number of cycles : 50 000

2.2.2. Conditioning 2 : tests at high temperatures

2.2.2.1. Electronic components

The components shall be cycled in a climatic chamber. A temperature of 338 K ± 5 K is maintained during the whole functioning. Number of cycles : 12 500.

2.2.2.2. Mechanical components

The components shall be cycled in a climatic chamber. A temperature of 373 K ± 5K is maintained during the whole functioning. Number of cycles : 12 500.

2.2.3. Conditioning 3 : tests at low temperature.
in the climatinc chamber used for conditioning 2, a temperature of 253 K ± 5 K is maintained during the whole functioning. Number of cycles : 12 500.

2.2.4. Conditioning 4 : test in a salted atmosphere. Only for components exposed to the ambient road environment.

The device shall be cycled in a salted atmosphere chamber. The concentration of sodium chloride is of 5 % and internal emperature of the climatic chamber is of 308 K ± 2 K. Number of cycles : 12 500.

2.2.5. Conditioning 5 : vibration test

2.2.5.1. The speed limitation device is mounted in a similar way to its mounting on the vehicle.

2.2.5.2. Sinusoidal vibrations shall be applied in all three planes; logarithmic sweep shall be 1 octave per minute.

2.2.5.2.1. First test : frequency range 10-24 Hz, amplitude ± 2 mm.

2.2.5.2.2. Second test : frequency range 24-1000 Hz. for chassis and cab mounted technical units, input 2.5 g. For engine mounted technical units, input 5 g.

2.3. Acceptance criteria of the endurance tests

2.3.1. At the end of the endurance tests, no modification of the device's performances shall be observed regarding the set speed.

2.3.2 However, if any breaking down of the device occurs during one of the endurance tests, a second device can be submitted to the considered endurance tests at the manufacturer's request.

ANNEX III

APPENDIX

1. ASYMPTOTIC CURVE

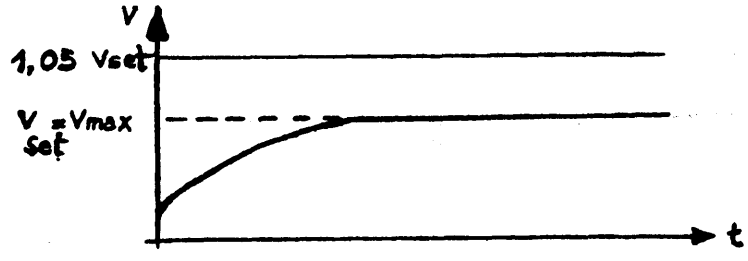


Figure 1

In this case, Vset = Vmax : the only condition on maximum speed is to satisfed. The area S is not defined.

2. OSCILLATING CURVE

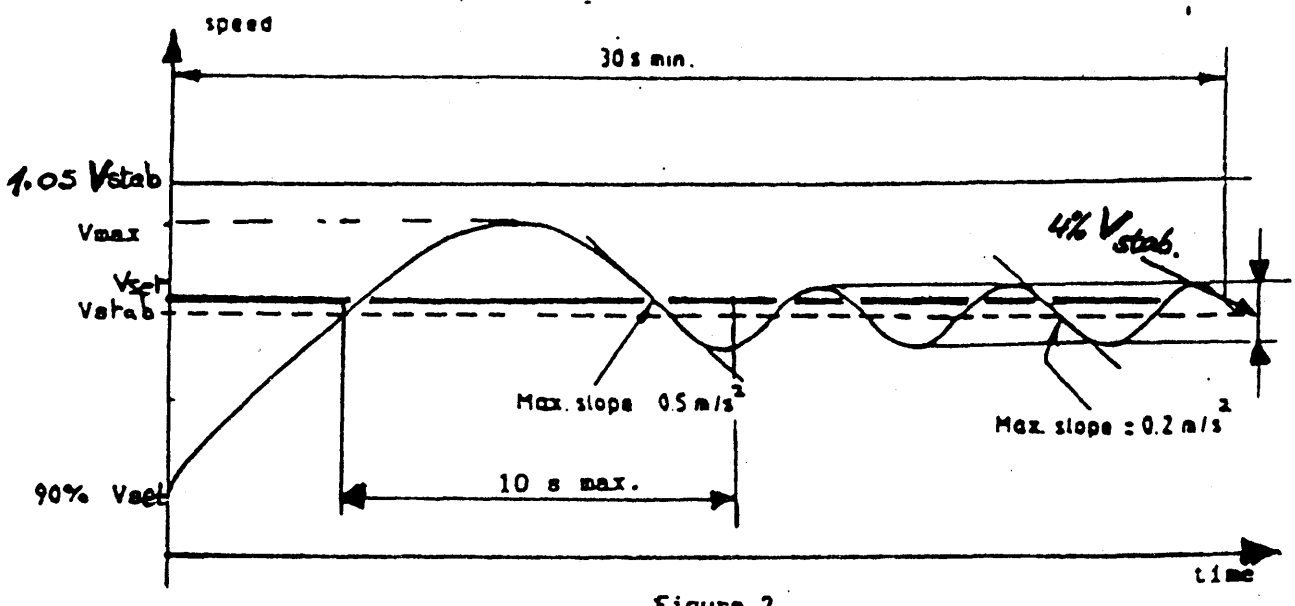


Figure 2

Vmax is the maximum speed reached by the vehicle on the first half period the response curve.

Vstab is the stabilized vehicle speed. It is the average speed calculated a time which is at least 20 seconds after the first half period.

FICHE D'IMPACT SUR LA COMPETITIVITE ET L'EMPLOI

Proposition de directive du Conseil concernant le rapprochement des législations des Etats membres relative aux limiteurs de vitesse des poids lourds et autocars.

I. Quelle est la justification principale de la mesure ?
- Achèvement de la procédure de réception CEE des véhicules automobiles.
- Harmonisation des législations nationales.
- Augmentation de la sécurité de la circulation routière.
- Réduction des émissions de polluants et de la consommation de carburants des véhicules à moteur.

II. Caractéristiques des entreprises concernées
En particulier :

- y-a-t-il un grand nombre de PME ? Non.
- note t'on des concentrations dans des régions :
  . éligibles aux aides régionales des E.M. ? Non.
  . éligibles au Feder ? Non.

III. Quelles sont les obligations imposées aux entreprises ?
Respecter les prescriptions desdites directives assurant ainsi le libre accès de leurs véhicules dans tout le territoire de la Communauté.

IV. Quelles sont les obligations susceptibles d'être imposées indirectement aux entreprises via les autorités locales ?
Respecter les prescriptions de ladite directive assurant ainsi le libre accès de leurs véhicules dans tout le territoire de la Communauté.

V. Y-a-t-il des mesures spéciales pour les PME ? Non.
- lesquelles ?

VI. Quel est l'effet prévisible :
- sur la compétitivité des entreprises ?
  pas d'effet prévisible.
- sur l'emploi ?
  pas d'effet prévisible.

VII. Les partenaires sociaux ont-ils été consultés ? Oui.
- Avis des partenaires sociaux : Pas d'objections.

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