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REGULATION (EEC) No 1463/70 OF THE COUNCIL

of 20 July 1970

on the introduction of recording equipment in road transport

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 Council Regulation (EEC) No 543/69¹ of 25 March 1969 on the harmonisation of certain social legislation relating to road transport, and in particular Article 16 thereof;

Having regard to the proposal from the Commission;

Having regard to the Opinion of the European Parliament;

Having regard to the Opinion of the Economic and Social Committee;

Whereas Article 16 of Regulation (EEC) No 543/69 provides for the determination of the technical characteristics of recording equipment to replace as far as possible the individual control book and for the determination at the same time of the details concerning the approval, use and testing of such equipment and the dates from which vehicles are to be fitted with such equipment;

Whereas in the current state of technical knowledge it is possible to envisage the development and production of types of recording equipment capable of replacing entirely the individual control book while ensuring that an effective check is kept on all periods of time referred to in Regulation (EEC) No 543/69 concerning the activities and rest of the crews of vehicles;

Whereas a certain period of time will be needed to develop and produce recording equipment and to set up the services necessary for the installation, repair

and testing of such equipment; whereas it is furthermore appropriate to provide for installation to be staggered over a certain period of time in order to maintain stability on the market, while giving priority to installation in vehicles which enter into service for the first time on or after a certain date and to installation in vehicles used for the carriage of dangerous goods;

Whereas the obligation to introduce such recording equipment can be imposed only for vehicles registered in Member States; whereas furthermore certain of such vehicles may, without giving rise to difficulty, be excluded from the scope of this Regulation;

Whereas, in order to ensure effective checking, the equipment must be reliable in operation, easy to use and designed in such a way as to minimise any possibility of fraudulent use; whereas to this end recording equipment should in particular be capable of providing, on separate sheets for each crew member and in a sufficiently precise and easily readable form, recorded details of the various periods of time;

Whereas automatic recording of other details of a vehicle's journey, such as speed and distance covered, will contribute significantly to road safety and will encourage sensible driving of the vehicle; whereas, consequently, it appears appropriate to provide for the equipment also to record those details;

Whereas, in certain Member States, there are as yet no rules concerning recording equipment in motor vehicles and whereas among the other Member States rules differ; whereas such omissions and differences are liable to hinder the free circulation of motor vehicles within the Community and to bring about distortions in the conditions of competition;

Whereas to remedy this situation it is necessary to lay down sufficiently detailed Community standards for construction and installation; whereas, in order to avoid any impediment to the registration of vehicles

¹ OJ No L 77, 29.3.1969, p. 49.

fitted with such recording equipment or any impediment to their entry into service or use, or to such equipment being used throughout the territory of the Member States, it is necessary to provide for an EEC approval procedure;

Whereas, in order to ensure that recording equipment functions reliably and correctly, it is advisable to lay down uniform requirements for the periodic checks and inspections to which the equipment is to be subject after installation;

Whereas, in order to achieve the aims hereinbefore mentioned of keeping a check on work and rest periods, it is necessary that employers and crew members be responsible for seeing that the equipment functions correctly and that they perform with due care the operations prescribed;

Whereas, in the interests of road safety and of keeping a more effective check on compliance with the provisions of Regulation (EEC) No 543/69 it is appropriate to lay down transitional provisions for the period preceding the compulsory introduction of recording equipment, so as to enable each Member State, in respect of vehicles registered in its territory, either to bring forward the dates specified in this Regulation for the installation of recording equipment complying with its terms, or to prescribe the use of recording equipment conforming to a type which has received national approval;

Whereas exercise by a Member State of the latter option is compatible with the measures provided for in Article 14 (4) and (5) of Regulation (EEC) No 543/69; whereas, in the interests of economy, it is desirable to avoid replacing too soon recording equipment conforming to a type which has received national approval and, therefore, the date from which the vehicles concerned must be fitted with recording equipment complying with the terms of this Regulation should be deferred for a certain time;

HAS ADOPTED THIS REGULATION:

CHAPTER I

Principles and scope

Article 1

Recording equipment within the meaning of this Regulation shall, as regards construction, installation, use and testing, comply with the requirements of this Regulation and of Annexes I and II thereto, which shall form an integral part of this Regulation.

Article 2

For the purposes of this Regulation the definitions set out in Article 1 of Regulation (EEC) No 543/69 shall apply.

Article 3

Recording equipment shall be installed and used in vehicles used for the carriage for passengers or goods by road and registered in a Member State, with the exception of the vehicles referred to in Article 4 of Regulation (EEC) No 543/69 and of vehicles used for the carriage of passengers on regular services where the route covered by the service in question exceeds 50 kilometres.

Article 4

1. With effect from 1 January 1975, the installation and use of recording equipment shall be compulsory, at the time of their entry into service, for:

- (a) vehicles registered for the first time on or after that date;
- (b) vehicles used for the carriage of dangerous goods, whatever the date of their registration.

2. With effect from 1 January 1978, the installation and use of recording equipment shall be compulsory for other vehicles.

Article 5

Crew members of vehicles fitted with recording equipment conforming to the provisions of Annexes I and II shall not be required to carry the individual control book provided for in Article 14 of Regulation (EEC) No 543/69. The provisions of Article 14 of that Regulation shall no longer apply to such crew members.

CHAPTER II

Type approval

Article 6

Applications for EEC approval of a type of recording equipment or of a model record sheet shall be submitted, accompanied by the appropriate specifications, by the manufacturer or his agent to a Member State. No application in respect of any one type of recording equipment or of any one model record sheet may be submitted to more than one Member State.

Article 7

A Member State shall grant EEC approval to any type of recording equipment or to any model record sheet which conforms to the requirements laid down in Annex I to this Regulation, provided the Member State is in a position to check that production models conform to the approved prototype.

Article 8

1. Member States shall issue to the applicant an EEC approval mark, which shall conform to the model shown in Annex II, for each type of recording equipment or model record sheet which they approve pursuant to Article 7.

2. The Commission may, by means of a Regulation, assign to Luxembourg a special number for the EEC approval mark referred to in the preceding paragraph to replace the letter assigned to that country under paragraph 1 of Chapter I of Annex II, in order to ensure harmony with any international agreements to which Luxembourg may become a party.

Article 9

The competent authorities of the Member State to which the application for type approval has been submitted shall, in respect of each type of recording equipment or model record sheet which they approve or refuse to approve, either send within one month to the authorities of the other Member States a copy of the approval certificate accompanied by copies of the relevant specifications, or, if it is the case, notify those authorities that approval has been refused; in cases of refusal they shall communicate the reasons for their decision.

Article 10

1. If the Member State which has granted an EEC approval as provided in Article 7 finds that certain recording equipment or record sheets bearing the EEC approval mark which it has issued do not conform to the prototype which it has approved, it shall take the necessary measures to ensure that production models conform to the approved prototype. The competent authorities of that State shall advise those of the other Member States of the measures taken, which may, if necessary, extend to withdrawal of EEC approval.

The said authorities shall take like measures if they are informed by the competent authorities of another Member State of such failure to conform.

2. If the Member State which has granted the EEC approval disputes the failure to conform notified to it, the Member States concerned shall endeavour to settle the dispute. The Commission shall be kept informed and shall if necessary hold appropriate consultations for the purpose of reaching a settlement.

3. The competent authorities of the Member States shall inform each other within one month of any withdrawal of an EEC approval and of the reasons for such action.

Article 11

1. An applicant for EEC approval for a model record sheet shall state on his application the type or types of recording equipment on which the model sheet in question is designed to be used.

2. The competent authorities of each Member State shall indicate on the approval certificate for the model record sheet the type or types of recording equipment on which that model sheet may be used.

Article 12

No Member State may refuse to register any vehicle fitted with recording equipment, or prohibit the entry into service or use of such vehicle for any reason connected with the fact that the vehicle is fitted with such equipment, if the equipment bears the EEC approval mark referred to in Article 8 and the installation plaque referred to in Article 14.

Article 13

All decisions pursuant to this Regulation refusing or withdrawing approval of a type of recording equipment or model record sheet shall specify in detail the reasons on which they are based. A decision shall be communicated to the party concerned, who shall at the same time be informed of the remedies available to him under the laws of the Member States and of the time-limits for the exercise of such remedies.

CHAPTER III

Installation and inspection

Article 14

1. Recording equipment may be installed or repaired only by fitters or workshops approved by the competent authorities of Member States for that purpose after they have heard the views of the manufacturers concerned.

Approved fitters or workshops may also be authorised to undertake, if necessary concurrently with the competent authorities of the Member States, checking on installation and subsequent inspection of recording equipment.

2. The approved fitter or workshop shall place a special mark on the seals which it affixes. The competent authorities of each Member State shall maintain a register of the marks used.

3. The competent authorities of the Member States shall send each other their lists of approved fitters or workshops and also copies of the marks used.

4. For the purpose of certifying that installation of recording equipment took place in accordance with the requirements of this Regulation an installation plaque affixed as provided in Annex I shall be used.

CHAPTER IV

Use of equipment

Article 15

The employer and crew members shall be responsible for seeing that the equipment functions correctly and that the seals remain intact. Any operation or interference resulting in falsified readings or recordings shall be prohibited. The seals may be broken only in case of absolute necessity, which will have to be duly proved.

Article 16

1. The employer shall issue a sufficient number of record sheets to crew members, bearing in mind the fact that these sheets are personal in character, the length of the period of service and the possible need to replace sheets which are damaged, or have been taken by an authorised inspecting officer. The employer shall issue to crew members only sheets of an approved model suitable for use in the equipment installed in the vehicle.

2. The employer shall retain record sheets for a period of at least one year after their use; the sheets for each crew member shall be produced at the request of any authorised inspecting officer.

Article 17

1. Crew members shall not use dirty or damaged record sheets. The sheets shall be adequately protected on this account. In case of damage to a sheet bearing recordings, the crew members shall attach the damaged sheet to the spare sheet used to replace it.

2. Crew members shall see that the equipment is kept running continuously from the time when they take over the vehicle until they are relieved from their responsibility for it. In particular they shall ensure that the time recorded on the sheet agrees with the official time in the country of registration of the vehicle and shall operate the switch mechanisms enabling the various periods of time to be recorded separately and distinctly.

When the crew members are away from the vehicle and therefore unable to operate the equipment fitted to the vehicle themselves, the various periods of time shall, whether manually, by automatic recording or otherwise, be entered on the sheet in a legible manner and without the sheets being dirtied.

Where the preceding subparagraph applies, crew members shall ensure that the entry marking the beginning of a period of time is made at the beginning of the period to which the entry relates.

3. Each crew member shall enter the following information on his record sheet:

- (a) on beginning to use the sheet—his surname and first name;
- (b) the date and place where use of the sheet begins and the date and place where such use ends;
- (c) the registration number of each vehicle to which he is assigned, both at the start of the first journey recorded on the sheet and then, in the event of a change of vehicle, during use of the sheet;
- (d) the odometer reading:
 - at the start of the first journey recorded on the sheet;
 - at the start of the first journey on each working day;
 - at the end of the last journey on each working day;
 - at the end of the last journey recorded on the sheet;
 - in the event of a change of vehicle during a working day (reading on the vehicle to which he was assigned and reading on the vehicle to which he is to be assigned);
- (e) the time of any change of vehicle.

4. The equipment shall be so designed that it is possible for an inspecting officer, if necessary after opening the equipment, to read the recordings relating to the nine hours preceding the time of the check without handling the sheet.

The equipment shall, furthermore, be so designed that it is possible without opening the case to check that recordings are being made.

5. Crew members must be able to produce on request by any authorised inspecting officer a record sheet or sheets giving full details of all relevant periods for not less than the fourteen days preceding the time when the check is made.

6. Any Member State may take the necessary measures to reduce the period specified in the preceding paragraph to a minimum of two days for crew members of vehicles registered in its territory engaging in national transport operations.

Article 18

1. In the event of breakdown or faulty operation of the equipment, the employer shall have it repaired by approved fitters or workshops, at the latest as soon as the vehicle has returned to the premises of the undertaking.

If the vehicle is unable to return to the premises within a period of one week counting from the day of the breakdown or of the discovery of defective operation, the repair shall be carried out en route.

Measures taken by Member States pursuant to Article 21 may give the competent authorities power to prohibit the use of the vehicle in cases where breakdown or faulty operation has not been put right as provided in the foregoing subparagraphs.

2. While the equipment is unserviceable or operating defectively, crew members shall mark on the record sheet or sheets, or on a temporary sheet to be attached to the record sheet, all information for the various periods of time which is not recorded correctly by the equipment.

CHAPTER V

Transitional provisions

Article 19

Any Member State may, for vehicles registered in its territory, bring forward the operative dates laid down in Article 4.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 20 July 1970.

Article 20

1. Without prejudice to the provisions of Article 14 (4) and (5) of Regulation (EEC) No 543/69, any Member State may, for vehicles registered in its territory, prescribe during the period preceding the compulsory introduction of the recording equipment provided for in Article 4 of the present Regulation, the installation and use of recording equipment of a type which has received national approval.

2. By way of derogation from the provisions of Article 4 (2) of this Regulation, the installation and use of recording equipment conforming to the provisions of Annexes I and II to this Regulation shall become compulsory only from 1 January 1980 for vehicles fitted with recording equipment of the type permitted under paragraph 1 of this Article.

CHAPTER VI

Final provisions

Article 21

1. Member States shall, in good time and after consulting the Commission, adopt such laws, regulations or administrative provisions as may be necessary for the implementation of this Regulation.

Such measures shall cover, *inter alia*, the reorganisation of, procedure for, and means of carrying out, checks on compliance and the penalties to be imposed in case of breach.

2. Member States shall assist each other in applying the provisions of this Regulation and in checking compliance therewith.

3. If it is brought to the notice of the competent authorities of a Member State that a breach of the provisions of this Regulation has been committed by a crew member of a vehicle registered in another Member State, those authorities may notify the authorities of the State where the vehicle is registered of such breach. The competent authorities shall send each other all the information in their possession concerning the penalties imposed for such breaches.

For the Council

The President

W. SCHEEL

Annexes : see OJ.

ANNEX I

REQUIREMENTS FOR CONSTRUCTION, TESTING, INSTALLATION AND INSPECTION

I. DEFINITIONS

In this Annex:

(a) **Recording equipment means:**

equipment installed in road vehicles to show and record automatically or semi-automatically details of the movement of those vehicles and of certain working periods of their crews.

(b) **Record sheet means:**

a sheet designed to accept and retain recorded data, to be placed in the recording equipment and on which the marking devices of the latter inscribe a continuous record of the information to be recorded.

(c) **The constant of the recording equipment means:**

the numerical characteristic giving the value of the input signal required to show and record a distance travelled of 1 kilometre; this constant must be expressed either in revolutions per kilometre ($k = \dots \text{rev/km}$), or in impulses per kilometre ($k = \dots \text{imp/km}$).

(d) **Characteristic coefficient of the vehicle means:**

the numerical characteristic giving the value of the output signal emitted by the part of the vehicle linking it with the recording equipment (gearbox output shaft or axle) while the vehicle travels a distance of one measured kilometre under normal test conditions (see Chapter VI (c) of this Annex). The characteristic coefficient is expressed either in revolutions per kilometre ($w = \dots \text{rev/km}$) or in impulses per kilometre ($w = \dots \text{imp/km}$).

(e) **Effective circumference of wheel tyres means:**

the average of the distances travelled by the several wheels moving the vehicle (driving wheels) in the course of one complete rotation. The measurement of these distances must be made under normal test conditions (see Chapter VI (c) of this Annex) and is expressed in the form: $1 = \dots \text{mm}$.

II. GENERAL CHARACTERISTICS AND FUNCTIONS OF RECORDING EQUIPMENT

The equipment must be able to record the following:

- (1) distance travelled by the vehicle;
- (2) speed of the vehicle;
- (3) driving time;
- (4) other periods of work or of attendance at work by the crew member or members;
- (5) breaks from work and daily rest periods;
- (6) opening of the case containing the record sheet.

For vehicles used by a crew consisting of more than one member the equipment must be capable of recording simultaneously but distinctly and on separate sheets details for two separate crew members of the periods listed under (3), (4) and (5). If the crew consists of more than two members, priority must be given to recording periods for those who are employed as drivers.

III. CONSTRUCTION REQUIREMENTS FOR RECORDING EQUIPMENT

(a) General points

1. Recording equipment shall include the following:

1.1 Visual instruments showing:

- distance travelled (distance recorder);
- speed (speedometer);
- time (clock);

1.2 Recording instruments comprising:

- a recorder of the distance travelled;
- a speed recorder;
- one or more time recorders satisfying the requirements laid down in Chapter III (c) 4.

1.3 A marking device showing on the record sheet each opening of the case containing that sheet.

2. Any inclusion in the equipment of devices additional to those listed above must not interfere with the proper operation of the mandatory devices or with the reading of them.

The equipment must be submitted for approval complete with any such additional devices.

3. *Materials*

3.1 All the constituent parts of the recording equipment must be made of materials with sufficient stability and mechanical strength and stable electrical and magnetic characteristics;

3.2 Any modification in a constituent part of the equipment or in the nature of the materials used for its manufacture must be authorised by the authority which approved the equipment.

4. *Measurement of distance travelled*

The distances travelled may be measured and recorded either:

- so as to include both forward and reverse movement; or
- so as to include only forward movement.

Any recording of reversing movements must on no account affect the clarity and accuracy of the other recordings.

5. *Measurement of speed*

5.1 The range of speed measurement shall be as stated in the type approval certificate.

5.2 The natural frequency and the damping of the measuring device must be such that the instruments showing and recording the speed can, within the range of measurement, follow acceleration changes of up to 2m/s^2 , within the limits of accepted tolerances.

6. *Measurement of time (clock)*

6.1 The control of the mechanism for resetting the clock must be located inside a case containing the record sheet; each opening of that case must be automatically recorded on the record sheet.

6.2 If the forward movement mechanism of the record sheet is controlled by the clock, the period during which the latter will run correctly after being fully wound must be greater by at least 10% than the recording period corresponding to the maximum sheet-load of the equipment.

If the forward movement mechanism of the sheet is controlled by the movement of the vehicle, the clock must be capable of running correctly without rewinding for at least one week.

7. *Lighting and Protection*

7.1 The visual instruments of the equipment must be provided with adequate non-dazzling lighting;

7.2 For normal conditions of use, all the internal parts of the equipment must be protected against damp and dust. In addition they must be made proof against tampering by means of casings capable of being sealed.

(b) *Visual instruments*

1. *Distance travelled indicator (distance recorder)*

1.1 The value of the smallest grading on the instrument showing distance travelled must be 0.1 kilometres

1.2 The figures on the distance recorder must be clearly legible and must be at least 4 millimetres in height.

1.3 The distance recorder must be capable of reading up to at least 99999.9 kilometres.

2. *Speed indicator (speedometer)*

2.1 Within the range of measurement, the speed scale must be uniformly graduated by 1, 2, 5 or 10 kilometres per hour. The value of a speed graduation (space between two successive marks) must not exceed 10% of the maximum speed shown on the scale.

2.2 The range indicated beyond that measured need not be marked by figures.

2.3 The length of each space on the scale representing a speed difference of 10 kilometres per hour must not be less than 10 millimetres.

2.4 On an indicator with a needle, the distance between the needle and the instrument face must not exceed 3 millimetres.

3. *Time indicator (clock)*

The clock-face must be visible and legible on the equipment when installed.

(c) *Recording instruments*

1. *General points*

1.1 All equipment, whatever the form of the record sheet (strip or disc), must be provided with a mark enabling the record sheet to be inserted correctly, in such a way as to ensure that the time shown by the clock and the time-marking on the sheet correspond exactly.

1.2 The mechanism moving the record sheet must be such as to ensure that the latter moves without any play and can be freely inserted and removed.

- 1.3 For record sheets in disc form, the forward movement device must be controlled by the clock mechanism. In this case, the rotating movement of the sheet must be continuous and uniform, with a minimum speed of 7 millimetres per hour measured at the inner border of the ring marking the edge of the speed recording area.

In equipment of the strip type, where the forward movement device of the sheets is controlled by the clock mechanism the speed of rectilinear forward movement must be at least 10 millimetres per hour.

- 1.4 Recording of the distance travelled, of the speed of the vehicle and of any opening of the case containing the record sheet or sheets must be automatic.

2. *Recording distance travelled*

- 2.1 Every kilometre of distance travelled must be represented on the record by a variation of at least 1 millimetre on the corresponding co-ordinate.

- 2.2 Even at speeds reaching the upper limit of the range of measurement, the record of distances must still be clearly legible.

3. *Recording speed*

- 3.1 Whatever the form of the record sheet, the speed recording stylus must normally move in a straight line and at right angles to the direction of travel of the record sheet. However, the movement of the stylus may be curvilinear, provided the following conditions are satisfied:

- the trace drawn by the stylus must be perpendicular to the average circumference (in the case of sheets in disc form) or to the axis (in the case of sheets in strip form) of the area reserved for speed recording;
- the ratio between the radius of curvature of the trace drawn by the stylus and the width of the area reserved for speed recording must be not less than 5 in the case of sheets in disc form or 2.4 in the case of sheets in strip form;
- the markings on the time-scale must cross the recording area in a curve of the same radius as the trace drawn by the stylus. The spaces between the markings on the time-scale must represent a period not exceeding one hour.

- 3.2 Each variation in speed of 10 kilometres per hour must be represented on the record by a variation of at least 1.5 millimetres on the corresponding co-ordinate.

4. *Recording time*

- 4.1 Recording equipment must be so constructed that it is possible, through the operation where necessary of a switch device, to record automatically and separately the following periods of time:

- driving time;
- other periods of work and of attendance at work;
- breaks from work and rest periods.

The equipment must be constructed in such a way that it is possible, under a design which must be lodged by the manufacturer at the time of the submission of the application for approval, to modify the equipment so as to record a further category of time.

- 4.2 It must be possible, from the characteristics of the traces, their relative positions and if necessary the signs laid down in Regulation (EEC) No 543/69, to distinguish clearly between the various periods of time. The various periods of time should be differentiated from one another on the record by differences in the thickness of the relevant traces, or by any other system of at least equal effectiveness from the point of view of legibility and ease of interpretation of the record.

- 4.3 In the case of vehicles with a crew consisting of more than one member, the recordings provided for in paragraph 4.1 must be made on two separate sheets, each sheet being allocated to one crew member. In this case, the forward movement of the separate sheets must be effected either by a single mechanism or by separate synchronised mechanisms.

(d) Closing device

1. The case containing the record sheet or sheets and the control of the mechanism for resetting the clock must be provided with a lock.
2. Each opening of the case containing the record sheet or sheets and the control of the mechanism for resetting the clock must be automatically recorded on the sheet or sheets.

(e) Markings

1. On the instrument face of the equipment the following markings must be shown:
 - close to the figure shown by the distance recorder, the unit of measurement of distance, indicated by the abbreviation 'km';
 - near the speed scale, the marking 'km/h';
 - the measurement range of the speedometer in the form 'V min ... km/h, V max ... km/h' This marking is not necessary if it is shown on the descriptive plaque of the equipment.
2. The descriptive plaque must be built into the equipment and must show the following markings, which must be visible on the equipment when installed:
 - name and address of the manufacturer of the equipment;
 - manufacturer's number and year of construction;
 - approval mark for the equipment type;
 - the constant of the equipment given to not less than two decimal places and in the form 'k = ...rev/km' or 'k = ... imp/km';
 - optionally, the range of speed measurement, in the form indicated in point 1 above.

(f) Maximum tolerances (visual and recording instruments)

1. *On the test bench before installation*

- (a) distance travelled: $\pm 1\%$ with a minimum of 10 metres
- (b) speed: ± 3 kilometres per hour
- (c) time: \pm two minutes per day with a maximum of ten minutes per seven days in cases where the running period of the clock after rewinding is not less than that period.

2. *On installation*

- (a) distance travelled: $\pm 2\%$ with a minimum of 20 metres
- (b) speed: ± 4 kilometres per hour
- (c) time: \pm two minutes per day or
 \pm ten minutes per seven days.

3. *In use*

- (a) distance travelled: $\pm 4\%$ with a minimum of 40 metres
- (b) speed: ± 6 kilometres per hour
- (c) time: \pm two minutes per day or
 \pm ten minutes per seven days.

4. The maximum tolerances set out in paragraphs 1, 2 and 3 above are valid for temperatures between 0 and 40 °C, temperatures being taken in close proximity to the equipment.

5. Measurement of the maximum tolerances set out in paragraphs 2 and 3 above shall take place under the conditions laid down in Chapter VI.

IV. RECORD SHEETS

(a) General points

1. The record sheets must be such that the records which they show are indelible, legible and clear.

The record sheets must retain their dimensions under normal conditions of humidity. In addition it must be possible to write on the sheets, without damaging them and without affecting the legibility of the recordings, the information referred to in Article 17 (3) of this Regulation. Under normal conditions of storage, the recordings must remain clearly legible for at least one year.

2. The minimum recording capacity of the sheets, whatever their form, must be twenty-four hours.

If several discs are linked together to increase the continuous recording capacity which can be achieved without intervention by staff, the links between the various discs must be made in such a way that there are no breaks in or overlapping of recordings at the point of transfer from one disc to another.

(b) Recording areas and their graduation

1. The record sheets shall include the following recording areas:
 - an area exclusively reserved for data relating to speed;
 - an area exclusively reserved for data relating to distance travelled;
 - one or more areas for data relating to driving time, to other periods of work and attendance at work, to breaks from work and to rest periods.
2. The area for recording speed must be scaled off in divisions of 20 kilometres per hour or less. The speed corresponding to each marking on the scale must be shown in figures against that marking. The symbol 'km/h' must be shown at least once within the area. The last marking on the scale must coincide with the upper limit of the range of measurement.
3. The area for recording distance travelled must be set out in such a way that the number of kilometres travelled may be read without difficulty.
4. The area or areas reserved for recording the periods referred to in 1 above must be so marked that it is possible to distinguish clearly between the various periods of time.

(c) Information to be printed on the record sheets

Each sheet must bear, in printed form, the following information:

- name and address or trade name of the manufacturer;
- approval mark for the model of the sheet;
- approval mark for the type or types of equipment in which the sheet may be used;
- upper limit of the speed measurement range, printed in kilometres per hour.

By way of minimal additional requirements, each sheet must bear, in printed form, a time-scale graduated in such a way that the time may be read directly at intervals of fifteen minutes while each five minute interval may be determined without difficulty.

(d) Free space for hand written insertions

A free space must be provided on the sheets such that employees may as a minimum write in the following details:

- surname and first name of crew member;
- date and place where use of the sheet begins and date and place where such use ends;

- the registration number or numbers of the vehicle or vehicles to which the crew member is assigned during the use of the sheet;
- odometer readings from the vehicle or vehicles to which the crew member is assigned during the use of the sheet;
- the time at which any change of vehicle takes place.

V. INSTALLATION OF RECORDING EQUIPMENT

1. Recording equipment must be positioned in the vehicle in such a way that the driver has a clear view from his seat of speedometer, distance recorder and clock while at the same time all parts of those instruments, including driving parts, are protected against accidental damage.

2. It must be possible to adapt the constant of the recording equipment to the characteristic coefficient of the vehicle by means of a suitable device, to be known as an adaptor.

Vehicles with two or more rear axle ratios must be fitted with a switch device whereby these various ratios may be automatically brought into line with the ratio for which the equipment has been adapted to the vehicle.

3. After the equipment has been checked on installation, an installation plaque shall be affixed to the vehicle beside the equipment or on the equipment itself and in such a way as to be clearly visible.

After each subsequent check the plaque must be replaced by a new plaque.

The plaque must show the following details:

- name, address or trade name of the approved fitter or workshop;
- characteristic coefficient of the vehicle, to three decimal places, in the form 'w = ... rev/km' or 'w = ... imp/km';
- effective circumference of the wheel tyres in the form '1 = ... mm';
- the dates on which the characteristic coefficient of the vehicle was determined and the effective measured circumference of the wheel tyres.

4. Sealing

The following parts must be sealed:

- (a) the installation plaque;
- (b) the two ends of the link between the recording equipment proper and the vehicle;
- (c) the adaptor and the point of its insertion into the circuit;
- (d) the switch mechanism for vehicles with two or more axle ratios;
- (e) the links joining the adaptor and the switch mechanism to the rest of the equipment;
- (f) the casings required under Chapter III (a) 7.2

In particular cases, further seals may be required on approval of the equipment type and a note of the positioning of these seals must be made on the approval certificate.

Only the seals mentioned in (b), (c) and (f) may be removed in cases of emergency; for each occasion that these seals are broken a written statement giving the reasons for such action must be prepared and made available to the competent authority.

VI. CHECKS AND PERIODIC INSPECTION OF RECORDING EQUIPMENT

(a) Checks

All equipment must be checked both on installation and after each repair.

Checking must include a check to see that the equipment is of a type which has received EEC approval and a check on errors in the visual and recording instruments; these errors must remain within the limits laid down in Chapter III (f) 2 for installation.

(b) Periodic inspection

Periodic inspection of the equipment *in situ* will take place every two years and may be carried out in conjunction with the technical inspection of the vehicle.

Particular points for inspection are:

- the correct functioning of the equipment;
- the state of the seals;
- the characteristic coefficient of the vehicle;

A periodic inspection of the equipment *in situ* in order to detect errors occurring during use in the data provided by the visual and recording instruments must be made at least once every six years. However, each Member State may prescribe a shorter period for such inspection for vehicles registered in its territory.

(c) Measurement of errors

The measurement of errors on installation and during use shall take place under the following conditions, which are to be regarded as constituting normal test conditions:

- vehicle empty, in normal running order, with a single driver on board;
- tyre pressures in accordance with the manufacturer's instructions;

(c) — tyre wear within the limits laid down by law;

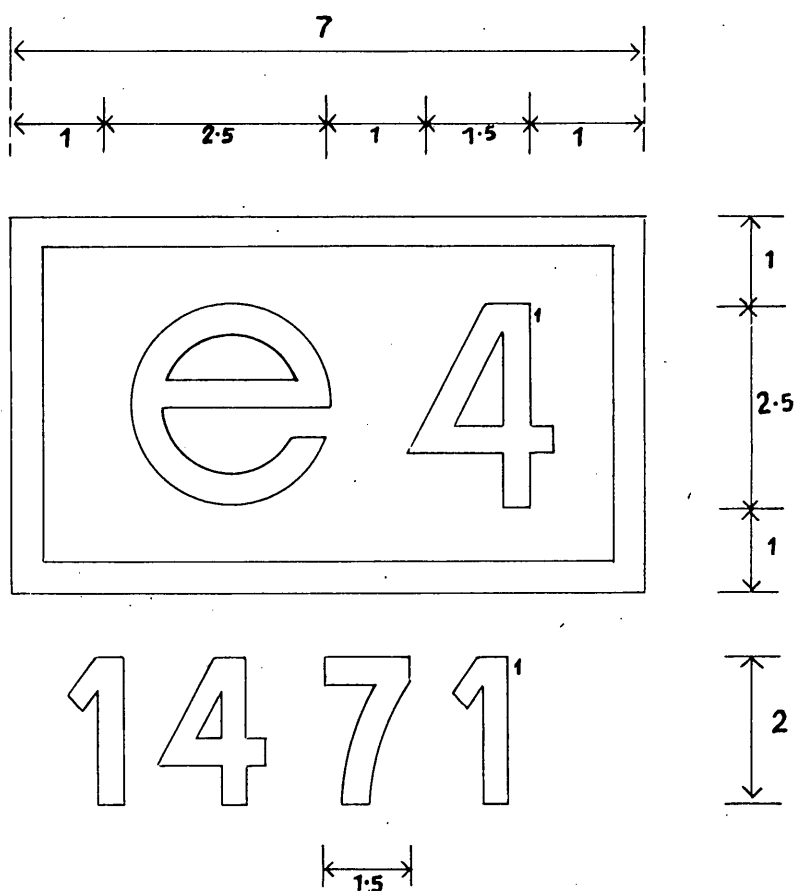
- movement of the vehicle: the vehicle must proceed, driven by its own engine, in a straight line and on a level surface, at a speed of 50 ± 5 kilometres per hour; inspection may also be carried out on a test bench fitted with appropriate rollers.

ANNEX II

APPROVAL MARK AND CERTIFICATE

I. APPROVAL MARK

1. The approval mark shall be made up of a rectangle, within which shall be placed the letter 'e' followed by a distinguishing number or letter for the country which has issued the approval (1 for Germany, 2 for France, 3 for Italy, 4 for the Netherlands, 6 for Belgium and the letter L for Luxembourg). At any point within the immediate proximity of this rectangle there shall be placed an approval number corresponding to the number of the approval certificate drawn up for the prototype of the recording equipment.
2. The approval mark shall be shown on the descriptive plaque of each set of equipment and on each record sheet. It must be indelible and must always remain clearly legible.
3. The dimensions of the approval mark drawn below are expressed in millimetres, these dimensions being minima. The ratios between the dimensions must be maintained.



¹ These figures are shown for guidance only.

II. APPROVAL CERTIFICATE

A State having granted approval shall issue the applicant with an approval certificate, the model for which is given below. When informing other Member States of approvals issued or, if the occasion should arise, withdrawn, a Member State shall use copies of that certificate.

APPROVAL CERTIFICATE	
Name of competent administration	
Notification concerning ¹ :	
— approval of a type of recording equipment	
— withdrawal of approval of a type of recording equipment	
— approval of a model record sheet	
— withdrawal of approval of a record sheet	
.....	
Approval No:	
1. Trade mark or name	
2. Name of type or model	
3. Name of manufacturer	
4. Address of manufacturer	
5. Submitted for approval on	
6. Tested at	
7. Date and number of test report	
8. Date of approval	
9. Date of withdrawal of approval	
10. Type or types of recording equipment in which sheet is designed to be used	
11. Place	
12. Date	
13. Descriptive documents annexed	
14. Remarks	
..... Signature	
¹ Delete items not applicable.	