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INLAND TRANSPORT COMMITTEE

ECONOMIC COMMISSION FOR EUROPE

Principal Working Party on Road Transport

CONSOLIDATED RESOLUTION ON ROAD TRAFFIC (R.E.1.)

Revision 5

Note by the secretariat

This document contains the recommendations on road traffic approved to date by the Principal Working Party on Road Transport (i.e. up to and including its ninety-first session).

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THE PRINCIPAL WORKING PARTY ON ROAD TRANSPORT,

DESIRING to establish greater uniformity in Europe in the regulations relating to road traffic, in order to improve road safety and facilitate international road traffic,

BEARING IN MIND that for this purpose a Convention on Road Traffic was opened for signature at Vienna on 8 November 1968 and that a European Agreement supplementing that Convention was opened for signature at Geneva on 1 May 1971,

NOTING nevertheless that the provisions of these two international instruments leave open the possibility of divergences between one country and another as regards some of the regulations in question,

RECOMMENDS Governments, in order to eliminate these divergences as far as possible, to incorporate into their domestic legislation regulations which conform to the recommendations reproduced below, and

FURTHER RECOMMENDS Governments which are not yet in a position to ratify or accede to the above international instruments nevertheless to apply the provisions of those instruments forthwith to the fullest extent possible.

Recommendation

1. ROAD TRAFFIC RULES

1.1. Direction of traffic

It is desirable, in the interests of road safety, that the direction of traffic should be the same in all countries. It is recognized, however, that financial and economic circumstances may preclude, for many years, any change of the direction of traffic in the minority of countries whose rule is to drive on the left. Nevertheless, those Governments shall keep in mind the desirability of such a change.

1.2. Level-crossings

Road users should be prohibited from proceeding beyond the railway cross sign (A, 28<sup>a</sup> or A, 28<sup>b</sup>) when a train is approaching a level-crossing marked with that sign.

1.3. Overtaking at intersections

No restrictions concerning overtaking at intersections should be imposed other than those specified in article 11, paragraph 8, of the 1968 Convention on Road Traffic.

1.4. Re-entry of vehicles of regular public transport services into the traffic stream when moving off from stops marked as such

In order to facilitate the movement of regular public transport service vehicles in built-up areas the obligation shall be envisaged for drivers of other vehicles to slow down and if necessary stop in order to allow the public transport vehicles to perform the manoeuvre required for moving off from stops marked as such, subject to the provisions of article 17, paragraph 1, of the 1968 Convention on Road Traffic.

The provisions thus laid down shall in no way affect the duty of drivers of public transport vehicles to take, after having given warning by means of their direction indicators of their intention to

move off, the precautions necessary to avoid any risk of accident.

1.5. Safety measures to be taken when a counter-flow bus lane is used

The adoption of the measures mentioned below, shall be encouraged in order to reduce the accident risk for pedestrians crossing a carriageway with a counter-flow lane reserved for certain categories of vehicles.

Provision shall be made for:

(a) Pedestrian crossings controlled by light signals

or

(b) Refuges on the outside edge of the lane in question, with a sign on each refuge and on the opposite pavement reminding pedestrians to look in the appropriate direction for approaching vehicles.

Crossing elsewhere than at the specially arranged places mentioned above shall be discouraged through the installation where necessary of protective devices separating the counter-flow lane and the pavement.

Care should be taken to ensure that protective devices are not sited in locations where passengers alighting from buses could be trapped between the bus and the device.

1.6. Information for drivers of international traffic on national legislation concerning speed limits by vehicle and road category

All the appropriate measures shall be taken to inform drivers of vehicles in international traffic, e.g. by signs and signals placed at frontiers, of the national requirements concerning speed limits.

1.7. Exchange of road and traffic information

With a view to improvement of the safety of traffic, road users should be informed of large-scale traffic disturbances on important international transit routes. It is recommended, therefore, to exchange information between neighbouring countries, if on the main road network defined by the neighbouring countries concerned:

(i) Major traffic disturbances (stop-and-go or congestion) are noticed;

(ii) Closures (e.g. due to construction work or natural catastrophes) become necessary for a prolonged period

(iii) Border crossing procedures cause considerable delays.

The competent authorities of the various countries should lay down details on the scope of information and its form of transmission.

1.8. Advance warning triangle

Where a warning triangle is used in accordance with Article 23, paragraph 5 of the 1968 Convention on Road Traffic as amended by the 1971 European Agreement, it shall meet the requirements of Regulation No. 27 annexed to the 1958 Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts. It shall be placed outside built-up areas near the edge of the carriageway or in the lane the stationary vehicle occupies perpendicular to the lanes centre line at least 30 m from the stationary vehicle in the direction of the

approaching traffic in such a way and at such a place where it may be possible for the drivers of the said vehicles to see it in time. This distance can be reduced when an advance warning triangle is used in built-up areas and should be at least 100 m on high speed roads. The above applies to other independent devices equally effective if prescribed in domestic legislation.

1.9. Criteria for the application of local restrictions on road traffic

1.9.1. General recommendations

Before any restriction is applied on road traffic, it may be necessary to conduct a comprehensive study of the accident rate and characteristics, and the rate and type of infraction of road regulations and traffic conditions on the section being considered and on adjoining sections. It is also appropriate to ensure a certain homogeneity of the imposed restrictions applied in analogous situations on the national territory, so that road users can understand them properly.

The use of variable message signs should be considered when restrictions are temporary and it is recommended when the needs for restrictions are occasional or unexpected.

It is recommended that:

- (a) As far as possible public opinion and involvement be considered before restrictions are applied;
- (b) Restrictions be localized, where appropriate, to certain hours of the day or certain days of the week;
- (c) The effectiveness of the application of restrictions be evaluated on the basis of changes in the accident rate and traffic volume on the section being considered and on adjoining sections.

1.9.2. Speed restrictions

Local speed limits (on particular sections of the road) may be applied according to the following two main criteria:

- (1) Where the introduction of speed limits is justified by the road and local conditions, in particular:
  - (a) Where it is necessary to ensure the traffic safety of pedestrians near schools, hospitals, etc.;
  - (b) Where forward visibility is short;
  - (c) Where it is desired to safeguard or improve the quality of the environment or of life.
- (2) As emergency and/or temporary measures, when unexpected events affecting road safety occur, in particular:
  - (a) Where the concentration of road accidents is higher than on other sections of road, e.g. at black spots;
  - (b) Where it is difficult for drivers to recognize a potential hazard on the road in good time;
  - (c) If it becomes necessary to ensure traffic safety in case of

a deterioration of road conditions.

The speed limit to be chosen could be set at the level of 85% on the cumulative curve of speed observed on the section being considered.

#### 1.9.3. Restrictions on overtaking

The advisability of a restriction on overtaking should be determined under the following conditions:

- (a) If visibility on the road is limited;
- (b) If the density of traffic justifies it;
- (c) In other cases where overtaking is hazardous and may cause road accidents.

Different signing technologies are available for each of the above conditions, and should be used accordingly.

#### 1.9.4. Prohibition of standing and parking

It is recommended that prohibition of standing and/or parking should be applied having regard to the positive and negative aspects of such a measure. For this purpose, it should be determined that a restriction on standing and/or parking would make it possible:

- (a) To ensure a higher degree of road safety, particularly for pedestrians and bicyclists;
- (b) To reduce the likelihood of congestion and improve the flow of traffic;
- (c) To reduce noise and air pollution;
- (d) To facilitate the service of public transport;
- (e) To protect the amenity of certain zones, e.g. to stop vehicles from parking in a historical area and stop vehicles of over 3.5 tonnes unladen mass from parking in a residential area;
- (f) To ensure public safety, e.g. to stop vehicles from standing or parking outside public buildings, embassies, etc.

Account should also be taken of the fact that all or only some of the above-mentioned adverse effects of this measure may occur on certain sections of the road network. In areas where there are many restrictions on standing or parking, it is recommended that drivers should get appropriate guidance as to where it is possible to park, e.g. by road signs or markings.

## 2. CONDITIONS FOR THE USE OF VEHICLES AND THEIR EQUIPMENT

### 2.1. Visibility of bicycles at night

The necessary steps shall be taken for the adoption of the measures mentioned below in addition to the requirements on equipping such vehicles contained in the 1968 Conventions aimed at increasing the safety of users of bicycles at night by improving the visibility of such vehicles.

At the front: without prejudice to existing national legislation on

conventional lighting such vehicles shall be equipped with a white reflex-reflector.

On the side: they shall be equipped with amber reflex-reflectors fixed to the spokes of the wheels; or with retro-reflective devices showing a continuous circle.

2.2. Marking of school buses

School buses shall conform to the requirements given below with regard to marking in order to warn the drivers of other vehicles of the need to take special care, particularly when such buses stop since children may cross the carriageway. If national legislation contains provision for the carriage of school children and other parties of children by other means of transport, those other means shall also meet the requirements given below.

(a) The "school bus" sign of which the model appears in annex 1 to this Consolidated Resolution shall be shown on all buses when, and only when, used solely for the carriage of schoolchildren. The sign shall be shown on the front and the rear of the bus, shall be clearly visible to approaching traffic and shall not interfere with the field of vision of the driver of the school bus. The sign to be shown on the rear of the bus shall be in the form of a square with a 400 mm side. If national legislation prescribes a different sign, for example, "Children", that sign may be used on vehicles carrying children, instead of the "School bus" sign.

(b) If domestic legislation permits or requires the use of a signal consisting of the simultaneous flashing of all amber direction-indicator lights, in accordance with the provisions of paragraphs 39 and 42 of annex 5 to the Convention on Road Traffic (1968), such a signal should be used by all buses or other vehicles carrying schoolchildren while children are boarding or alighting.

(c) If national legislation so requires, vehicles transporting children shall display their passing lights during daylight hours.

2.3. Marking of trailers coupled to cycles

If a trailer is coupled to a cycle, a red reflecting device and also, if the rear lamp of the cycle is hidden by the trailer or is not lit, a red lamp shall be required to be placed on the rear of the trailer.

2.4. Provisional registration

(a) Vehicles whose registration is applied for by or on behalf of persons claiming to be only casual visitors to the country and benefiting on that account from Customs or tax exemptions (tourist-owned vehicles which are not registered or whose registration is not recognized, vehicles bought for export) shall not be registered in an ordinary series.

(b) Such vehicles shall be registered provisionally, the registration to be valid only for a period defined in domestic legislation.

(c) Such registrations shall not be granted for vehicles which are out of the country unless the circumstances are exceptional and properly vouched for.

(d) The registration plates provided for vehicles so registered shall be of approximately the same dimensions as normal plates but shall

show, one below the other, the last two figures of the year at the end of which the validity of the provisional registration expires, preferably inscribed in white on a vertical red bar (or in red on a white bar if the background of the plate is red).

(e) Further provisional registration of a vehicle which has already been registered provisionally shall not be allowed unless the service concerned has taken all necessary precautions to prevent abuse.

(f) Registration certificates for vehicles referred to in subparagraph (a) above shall in each case include the address stated by the applicant to be his ordinary residence outside the country in which he has applied for provisional registration (there being, however, no obligation to check in detail the statement by the holder of the certificate as to his ordinary residence), and shall indicate the date on which the validity of the provisional registration applied for expires.

2.5. Registration certificates for hired vehicles

Where the issue of registration certificates to persons hiring vehicles would present difficulties, it may be made possible for extracts from or copies of the registration certificate, containing at least all the particulars required under Article 35, paragraph 1, of the Convention on Road Traffic (1968), to be issued by the authority which issued the certificate or by an association empowered for that purpose by the authority, it being understood that:

(a) A photocopy of the certificate, certified as a true copy by the authority which issued the certificate, may take the place of the copy proper or extract referred to above;

(b) It shall be for the authority issuing the copy or extract or certifying the photocopy to be a true copy to decide whether or not to require the original registration certificate to be deposited;

(c) The copies, extracts or photocopies shall be marked "Vehicle on hire. Copy (extract, photocopy) for use by the person hiring the vehicle". Copies, extracts or photocopies issued, in conformity with the foregoing requirements, for hired vehicles registered abroad shall be accepted in place of the registration certificate.

2.6. Periodic inspection of vehicles

(a) Periodic technical inspection of motor vehicles in service at authorized facilities shall be made mandatory in accordance with domestic legislation.

(b) Legislation shall make it possible for vehicles to be inspected on the road without warning.

(c) The following vehicles shall be required to undergo a technical inspection at least once a year after admission to traffic in order to ascertain whether they satisfy statutory requirements, particularly in regard to the road traffic safety and environmental protection:

(i) Motor vehicles and trailers used for passenger transport and having more than eight seats in addition to the driver's seat;

(ii) Motor vehicles used for goods transport whose permissible maximum mass exceeds 3.5 tons, and their trailers;

(iii) Taxis.

(d) Other motor vehicles shall also be required by the domestic legislation to undergo a technical inspection periodically.

(e) Regulations concerning technical inspection shall be based on the checks listed in annex 2 to this Consolidated Resolution.

(f) Domestic legislation may specify particularly stringent rules for vehicles which were involved in accidents or which have changed ownership.

2.7. First aid kits

(a) A first aid kit shall be placed in vehicles of categories B (in case they are destined for transport of goods and passengers), C and D as defined in annex 6 to the Convention on Road Traffic (1968);

(b) The possession of such a kit shall be encouraged on vehicles

other than those indicated under paragraph (a) above when basic knowledge of and training in first aid is a condition for obtaining a permit to drive them;

(c) Such a first aid kit shall include at least the following items:

Mask for artificial respiration  
without mouth-to-mouth contact ..... 1 unit

Absorbing cover-dressing, sterile packed:

small (about 10 x 10 cm)..... 2 units  
medium (about 20 x 25 cm) ..... 1 unit  
large (about 25 x 40 cm) ..... 1 unit

Stretchable stocking-type bandage  
(length preferably 30 cm):

Suitable for head ..... 1 unit  
Suitable for arm ..... 1 unit  
Suitable for leg ..... 1 unit

Roller bandage (10 or 12 cm) ..... 2 units

Elastic bandage (width 10 or 12 cm)  
in addition preferably a pad to form  
a pressure bandage ..... 2 units

First aid dressing, with dressing  
gauze (size approximately  
6 x 10 cm) ..... 2 units

Elastic bandage (width 10 or 12 cm)  
in addition preferably a pad to form  
a pressure bandage ..... 2 units

First aid dressing, with dressing  
gauze (size approximately  
6 x 10 cm) ..... 2 units

First aid adhesives (assorted sizes) ..... 1 box

Emergency waterproof blanket  
(200 x 250 cm) preferably with one  
side in a high visibility colour ..... 1 unit

First aid scissors ..... 1 pair

Safety pins (large) ..... 6 units  
Foam rubber block  
(1.5 x 30 x 50 cm) ..... 1 unit

Note block with pen or pencil ..... 1 unit

Triangular bandage (optional) ..... 1 unit

Instructions on how to use the first aid kit, including a  
recommendation that any equipment consumed be replaced  
immediately.

## 2.8. Loading and stowage methods

Governments shall publicize and encourage publicity for the

methods and rules reproduced in annex 3 to this Consolidated Resolution.

2.9. Marking of long and/or heavy vehicles

Considering the difficulty of recognizing and overtaking long (as specified in domestic legislation) and/or heavy vehicles, they shall bear one or other of the following additional rear markings:

- (a) Vertical markings consisting of two rectangular panels placed vertically and symmetrically in relation to the median longitudinal plane of the vehicle and towards the sides of the vehicle, the lower edge of the panels being between 0.5 and 1.5 metres above the ground;
- (b) Horizontal markings consisting of either one or two rectangular panel(s) placed horizontally and symmetrically in relation to the median longitudinal plane of the vehicle, the lower edge of the panel(s) being between 0.5 and 1.5 metres above the ground. A minimum size of the panel should be specified in domestic legislation.

The panel(s) shall consist of amber retroreflective and red fluorescent materials, for example:

- (a) For trailers and semi-trailers, amber retroreflective background which may include symbols, with red fluorescent border and
- (b) For non-articulated heavy vehicles, chevron-type markings made up of amber retroreflective and red fluorescent materials.

The materials used for the additional markings shall comply with ECE Regulation No. 70 annexed to the 1958 Agreement concerning Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts.

2.10. Marking of slow vehicles which by their construction are not capable of exceeding the speed of 30 km/h

Considering the danger in traffic presented by slow moving power-driven vehicles which by their construction are not capable of exceeding the speed of 30 km/h (with the exception of mopeds), they shall bear the following additional rear marking a triangular-type marking, clearly distinguishable from that provided for in the Convention on Road Traffic (1968) for the rear marking of trailers and semi-trailers (annex 5, paragraph 28), incorporating a red fluorescent background with an amber or red retroreflective border.

This additional marking shall be solidly fixed at the rear either of the vehicle or its trailer or, if appropriate, of its load.

The devices used for the additional markings shall comply with the technical provisions of ECE Regulation No. 69 annexed to the 1958 Agreement concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts.

3. ROAD USERS

3.1. Guidelines for professional driving instruction

INTRODUCTION

- (a) Professional driving instruction should be based on the following

basic considerations:

- (i) The behaviour of drivers plays an important role in road traffic accidents and their prevention;
  - (ii) Minimum requirements for driving tests have been set out in the Agreement on Minimum Requirements for the Issue and Validity of Driving Permits (APC), done at Geneva on 1 April 1975;
  - (iii) In order to conform at least with these minimum requirements, appropriate tuition is necessary;
  - (iv) The methods of tuition shall always follow the evolution of development in the field of education and applied psychology and therefore be adjusted to the requirements of the moment and of the local conditions;
  - (v) Liaison meetings between representatives of driving schools, instructors and the driving test authorities shall be encouraged so as to improve the standards of tuition.
- (b) The requirements indicated in the present recommendation are to be considered as a minimum and Governments shall endeavour to supplement them whenever possible by measures taking into account existing educational trends;
- (c) It is recommended that Governments shall take all appropriate steps to ensure that tuition in the driving of motor vehicles shall be given as far as possible in accordance with the minimum conditions set out in paragraphs (d) to (j) below.

#### INSTRUCTORS

(d) Professional tuition shall be given only by instructors approved by the competent authority in accordance with the conditions set out in annex 4 to this Consolidated Resolution. The instruction given in some countries by trainee instructors should be under the personal supervision and the direct responsibility of a professional instructor.

#### TUITION

(e) The tuition provided shall aim at promoting correct attitude and behaviour in all kinds of traffic situations, cover the matters set out in annex 5 and follow the methods set out in annex 6 to this Consolidated Resolution to at least the standards required by the theoretical and practical driving tests, and enable the pupil to realize the dangers of traffic and understand that they are particularly great during the initial years of driving.

(f) Instructors shall be encouraged, in giving the instruction mentioned in paragraphs (e) and (g), to:

- (i) Make the fullest possible use of active methods of tuition and modern teaching aids, including, if appropriate, off-road areas for certain categories of vehicles;
- (ii) Adapt their training methods to suit the individual pupil in a way which encourages active participation by the pupil;
- (iii) Develop systematic training methods which coordinate theoretical and practical training in particular aspects of driving and risk-avoiding behaviour.

(g) Suitable facilities, teaching aids and equipment for the provision of theoretical instruction, determined by education plans and instruction programmes, shall be provided.

#### VEHICLES USED FOR TUITION

(h) Motor vehicles used for the practical tuition shall be such that the instructor has the facility to control the driving of the candidate to the extent necessary to prevent accidents.

(i) Vehicles shall be marked in such a way as to indicate clearly to the front and to the rear that they are being used for tuition.

#### SUPERVISION

(j) The continued application of the provisions set out in paragraphs (d) to (i) above shall be checked at regular intervals by the competent authorities.

### 3.2. First aid training

(a) Appropriate measures shall be taken to ensure that candidates for drivers' licences receive proper training concerning their conduct at an accident site, so as to minimize the hazard to life or health at the scene.

(b) Drivers and other people should be encouraged to acquire first aid training on a voluntary basis through courses or through mass media or any other appropriate means.

3.3. Instruction of children in safe road behaviour

(a) The appropriate steps shall be taken to encourage road safety instruction for children and ensure that it is given, as far as possible, in accordance with the following principles and the provisions in Annex 8.

(b) The main aim of road traffic safety education shall be:

- (i) To instil the knowledge necessary to observe road traffic rules and for safety on the road or street;
- (ii) To ensure correct and safe behaviour in the various traffic situations according to limits of children (e.g. age, development);
- (iii) To develop awareness of the importance and usefulness of road traffic safety and the measures taken.

(c) To be effective, road safety education shall be provided on a systematic and continuous basis in pre-school establishments, primary and secondary schools, within out-of-school activities and places of further education. Every effort shall be made to secure the active participation of children and the cooperation and participation of parents to enable them to be an integral part of the tuition process, particularly in the early ages.

(d) Road safety instruction may be taught not only as a single subject but should also be incorporated into more general approaches designed to ensure that the child and teenager learn to respect the fundamental values of human beings' everyday lives. Furthermore, it should encourage young people to adopt reasonable, safe and considerate conduct not only when driving but in day-to-day living, especially in respect to other people. To have maximum educational impact, road safety education must cover areas beyond simply the highway code, such as practical skills, knowledge of and positive attitudes towards safety via technical subjects, ethics, social science.

(e) Safety of children on their way to school and back has similar principles and characteristics in many countries. Therefore it is a particularly suitable subject to demonstrate international cooperation and friendship as a subject to be taught in schools.

3.4. Wearing of protective helmets by cycle users

Users of cycles should be encouraged to wear helmets that provide suitable protection.

3.5. Safety of moped users

The necessary steps shall be taken in order to ensure maximum safety of moped users, by implementing provisions in keeping with the requirements set out below:

- (1) Mopeds (as defined in article 1 (m) of the 1968 Convention on Road Traffic)

Visibility at night: Without prejudice to existing national legislation on conventional lighting, such vehicles shall be equipped with lateral markings consisting inter alia of either amber reflex-reflectors fixed to the spokes of the wheels, or retro-reflective material showing a continuous circle on the side-walls of the tyres.

Special rear registration plates for these vehicles should also be retro-reflective.

#### Performance

(a) mopeds shall be so constructed that the maximum speed permitted by national legislation cannot be increased.

(b) Modifications of mopeds resulting in a change in their performance and safety of operation shall be prohibited.

Trailers: Where trailers are permitted by national legislation:

(a) Trailers shall be such that the performance of the combination ensures sufficient safety of operation (speed, visibility, braking).

(b) Trailers coupled to mopeds must be fitted at the rear with a red reflecting device. If the red lamp of the moped is hidden by the trailer and/or its load, a red lamp must be placed on the rear of the trailer.

#### (2) Moped users

The wearing of clearly visible garments and safety equipment, if possible, equipped with fluorescent and reflective materials or devices shall be encouraged especially when visibility is reduced by bad weather conditions or at night.

#### (3) Use of mopeds

(a) Moped drivers should be at least 14 years of age;

(b) Governments are recommended to introduce obligatory tuition for moped drivers.

### 3.6. Safety of motor cycle users

#### (1) Visibility

In addition to the obligatory lighting and light-signalling devices prescribed by the 1968 Convention on Road Traffic, motor cycles may be equipped with the following additional devices:

Vehicle-hazard warning signal;

Front and rear fog lamps;

Side amber reflex reflectors.

The fitting of such devices should be encouraged and shall be effected in conformity with the relevant requirements of Regulation No. 53 annexed to the 1958 Agreement.

#### (2) Vision

Motor cycles shall be equipped with at least one rear-view mirror.

#### (3) Aptitudes required for drivers

Candidates for a motor cycle driving permit shall be required to pass theoretical and practical tests after receiving appropriate instruction.

The use of high-performance \*/ motor cycles shall be subject to stricter conditions (special permits) with respect to the driver's aptitudes than those required for driving other motor cycles. To this end, the use of such vehicles may in particular be restricted at the national level to drivers:

Above a certain age, and/or

Already having  
light motor  
found guilty  
traffic rules.

some experience in driving  
cycles and not having been  
of any serious breach of road

(4) Protective

Motor cycles  
provide effective  
legs.



devices and their use

shall by their design  
protection for the driver's

All possible measures shall be taken in order to assure the correct wearing of protective helmets.

(5) Miscellaneous provisions

Safety campaigns to improve motor cycle drivers' behaviour in traffic and to urge other road users to pay more attention to motor cyclists, particularly at crossroads, should be encouraged and their effectiveness evaluated.

The wearing of safety garments and equipment, if possible, fitted with fluorescent and reflective materials or devices, should be encouraged, especially for conditions when visibility is reduced by bad weather or at night.

Governments may make it compulsory for motor cycle drivers to drive with the passing lamps or running lamps switched on in daylight.

### 3.7. Exemptions from the wearing of safety belts

(a) Member countries are recommended to recognize the validity on their territory of papers exempting persons from wearing seat belts on medical grounds, issued in another ECE country, provided that the said papers, which may be either official documents or medical certificates according to the country concerned, bear the symbol as presented below and indicate the holder's name and the period of validity.

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\*/ Category to be defined nationally/internationally.

(b) Nationals of countries in which the wearing of seat belts has not been made compulsory by law shall, in order to be granted exemption in the country visited, carry a medical certificate drawn up in compliance with the requirements laid down above.

3.8. Requirements for drivers of vehicles of category D (general principles)

(a) Bearing in mind the particular responsibility of drivers of vehicles of category D, the Governments should assure, by means they consider appropriate, that the candidates for driving permits of this category have no past records which are incompatible with such responsibility.

(b) The candidates should be required to meet minimum requirements concerning their physical, mental and professional abilities, as contained in annex II of the Agreement on Minimum Requirements for the Issue and Validity of Driving Permits (APC) of 1 April 1975.

(c) The candidates should have sufficient practical experience of driving vehicles of categories B or C (for example three years) and undergo special training in driving schools. National law may specify the exceptions to these principles.

(d) The composition and content of the special training programmes and the duration of the training should be determined depending upon the qualification and experience of the candidates.

(e) The special training programme should include items concerning embarkation and disembarkation of passengers, particularly of children, physically handicapped and elderly persons, braking and stopping at different speeds with regard to the safety of passengers, urgent passenger evacuation measures, rendering of the first medical aid to passengers in case of emergency.

(f) Drivers of vehicles of category D should undergo periodical medical examinations within the time period specified by the national law.

3.9. Safety of occupants of broken-down vehicles

(a) In order to avoid drivers and other occupants of broken-down vehicles at the road-side and on the edges of motorways being hit by other vehicles while awaiting assistance or during repairs, it is recommended that, in addition to the use of advance warning devices, described in recommendation 1.13., they wear safety clothing or other appliances making them highly visible by day and by night.

(b) These safety devices should be made of fluorescent materials fitted with retroreflective bands in such a way that they are clearly visible under all conditions and from all angles.

3.10. Symbols warning drivers of vehicles of the dangerous effects of certain medications

(a) It is recommended that Governments shall take appropriate steps to

ensure that drivers of vehicles are adequately informed of the adverse effects on their driving of certain medications prescribed by doctors or supplied by chemists without prescription.

(b) Such information shall be provided by means of the warning symbol reproduced below displayed on the packaging of the medication concerned.

SYMBOL OF WARNING (b)

4. ROADS

4.1. Protection against wild animals

Protection against wild animals crossing the road at points where they are likely to do so shall be provided on roads, in particular on those carrying fast traffic. If possible, such measures should be combined with other initiatives to minimize the negative influence from roads on the distribution of wild-life.

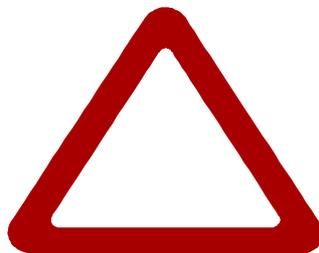
4.2. Safety garments for persons working on the road

Safety  
working on the  
following

(a) The surface  
amount to at  
front and the

(b) The colour

(c) The surface  
two stripes of reflectorized material at both the front and the back.



garments for persons  
road shall conform to the  
requirements.

area of the garment shall  
least 1,500 cm<sup>2</sup> at both the  
back;

shall be a fluorescent orange;

of the garment shall include  
two stripes of reflectorized material at both the front and the back.

4.3. Clearance of civil engineering works above the carriageway

A clearance of at least 4.50 m above the carriageway shall be prescribed for new or rebuilt civil engineering works throughout the main road system.

(See also Consolidated Resolution on Road Signs and Signals (R.E.2), recommendation 1.7).

4.4. Measures to be taken to ensure the safety of children on their way to and from school

(a) Children are especially prone to traffic injuries and the risk of long-term (permanent) disability which may have profound effects on victims= quality of life.

(b) Many road traffic accidents in which children of school age are involved take place when children are on their way to or from school.

(c) Road traffic is the most complex and difficult aspect of the environment which the child can experience. As a result of its physiological and psychological development, a child's behaviour is less predictable than and markedly different from that of an adult.

(d) In order to reduce the number of child casualties, it is recommended:

- (i) To supplement the recommendation on minimum requirements in road safety instruction for children, in particular in schools (see recommendation 3.3.);
- (ii) To protect children by active and passive safety measures
- (iii) To eliminate as far as possible dangerous situations on roads near schools and on the routes taken to reach them; and
- (iv) To underline the importance of adapting as far as is possible the traffic environment so as to take into account the special problems of children.

(e) The necessary measures shall be taken to ensure the safety of children on their way to and from school and in the immediate vicinity of schools, in so far as possible, in accordance with the following provisions:

#### PARENTS AND SCHOOL AUTHORITIES

(f) Parents should be informed of their children's limited abilities as road users and shall be encouraged to increase the safety of their children both by supervision and training. As regards supervision, parents shall be especially encouraged to accompany their children or have them escorted to school, particularly those in lower grades, and teach them progressively to go alone. As regards the acquisition of correct behaviour in traffic, theoretical training should be supplemented by practical training given in real traffic conditions and children should be taught how to behave as pedestrians (how to cross a road, walk on the side of the road if there is no pavement, etc.). Such training shall be carried out by both teachers and parents.

(g) Particular attention shall be given by adults to show by their own example correct behaviour in traffic to children who are accompanied by them.

(h) Patrols (police, teachers, parents or older pupils) shall be organized to protect children at dangerous places on the way to and from school. As patrols composed of older pupils contribute not only to a greater degree of safety of children at such places but also to the road safety education in general of the patrollers themselves and to the development of their sense of responsibility, it is suggested that special attention be given to promoting such patrols.

(i) The use of scientifically prepared mass-media communication programmes, aimed at parents and children, in order to enhance the safety of children on their way to and from school shall be promoted.

(j) A transport system (e.g. school buses - see Recommendation 2.2.) shall be established for children, in particular those in lower grades, especially if the school is far away from residential areas.

(k) Parents and school authorities shall be encouraged to ensure that children wear brightly coloured clothing and safety devices (retro-reflective and fluorescent material), in particular in conditions of poor visibility.

(l) Children who may use cycles or mopeds according to the provisions of national legislation shall be instructed in the basic traffic rules, the importance of correct equipment of their vehicle (lighting, retro-reflectors, brakes, etc.), the use of protective devices (helmets, etc.), and the particular dangers to be encountered in road traffic for their category of vehicle, especially in relation to heavy vehicles. If the children are allowed to use cycles at an early age, parents shall be encouraged to accompany them or to have them escorted and to follow the guidelines set out in paragraphs (h) and (i) above, to teach them progressively to behave correctly as cyclists.

#### DESIGN OF SCHOOLS AND THEIR ENVIRONMENT

(m) Road safety and public health authorities shall be involved in the early stages of planning new schools so as to ensure that, as far as possible, they are built near residential areas and far from roads carrying heavy traffic.

(n) Routes located near schools shall be planned, designed, equipped and maintained so that they are safe for children (sufficiently wide pavements, foot-paths, cycle-tracks, roadside barriers, pedestrian crossings, underpasses and footbridges with the appropriate signs and markings, light signals and lighting of carriageways).

(o) There must be no man-made or natural obstructions, including stationary vehicles on roads and parking areas in the vicinity of schools that might block children's view of the road and vehicles travelling along it, or drivers' view of children.

(p) Exits from schools or their grounds shall be planned in such a way as to lead on to roads which present the least possible traffic hazards for children.

(q) If possible, approaches to schools shall be laid out so as to separate motor vehicle traffic from cyclist and pedestrian traffic.

(r) Where direct access of children to a busy street is inevitable, steps should be taken to moderate traffic on that street, either permanently or during busy school hours.

(s) If possible, stopping places shall be provided for vehicles carrying schoolchildren (buses, parents' cars), if possible, off the carriageway and on the same side of the road as the school building.

#### ROAD TRAFFIC

(t) Drivers shall be warned by appropriate road signs of the proximity of schools. At least during school hours and during hours when children go to and from school, speed shall be reduced and parking and overtaking shall be prohibited.

(u) The competent authorities shall reinforce checks on driver's respect of traffic rules near schools when children enter or leave them.

STATISTICS AND RESEARCH

(v) Governments shall ensure that all road accidents involving injuries to children are recorded in their national statistics, and shall take steps to improve the quality of the data which is recorded. Where it is not possible to include in national statistics data about the accident having occurred on a journey to or from school, the necessary information shall be obtained by means of ad hoc investigations or surveys.

(w) Governments shall take the necessary steps to develop research for increasing the safety of children who participate in road traffic.

4.5. Safety of children on school buses

Maximum safety for children being transported in school buses shall be ensured by subjecting such transport, as far as possible, to the following conditions:

(a) School bus stops

- (i) The school bus stops must conform to recommendation 4.4 (s) and preferably be on school territory; plans for new schools shall take this into account.
- (ii) If school bus stops are sited at a normal bus stop, the design of the bus stop shall take this into account.
- (iii) The space available for children when waiting for the bus must be sufficiently large to accommodate them; it shall be separated from the carriageway by a fixed barrier broken at the point where the doors of the bus open and this area shall be protected by a second barrier placed further back.
- (iv) When a school bus stop is not at the site of a normal bus stop, it shall be clearly marked as such.

(b) Transport

- (i) The transport of standing children shall not be allowed.
- (ii) The presence of a monitor is highly recommended. If the role of monitor is entrusted to a pupil, he/she shall be at least 16 years old and have received special training.
- (iii) Drivers should become aware of specific problems concerning the transport of children.

(c) Children should be instructed on how to behave at a bus stop, during getting on and getting off the bus and during the journey. Such education should be supplemented by practical training, particularly in facing dangerous situations.

4.6. Measures intended to facilitate the movement of handicapped persons in traffic

In addition to the provisions of the 1968 Conventions on Road Traffic and on Road Signs and Signals and the 1971 European Agreements supplementing them, it is recommended that urgent and suitable action shall be taken in order to facilitate the movement of handicapped persons in road traffic wherever possible and with due consideration for the safety of all road users, in accordance with the following principles:

- (a) Adoption of the international symbol reproduced in annex 9 to this Consolidated Resolution or as described in the 1968 Convention on Road Signs and Signals (annex 1, chapter H, paragraph 1) and its incorporation in documents, road traffic signs, etc. used to facilitate the movement of handicapped persons;
- (b) Allowing handicapped persons in wheelchairs to use pedestrian walkways and pavements, provided movement is at walking pace, and cycle-tracks where there is no properly surfaced pavement or

pedestrian walkway;

(c) Inclusion in the rules on the construction and maintenance of the transport infrastructure of provisions designed to guarantee that handicapped persons are able to move about without encountering major difficulties. In particular, a distinction shall be made between the use of pavement material to guide blind persons and its use to warn them against obstacles. The guidance function shall be adopted for approaches to crossings, bus stops, public buildings, etc.; the warning function shall give protection for blind people against obstacles such as trees, parking metres, notice boards, etc., along the pavement. The following measures, among others, shall be encouraged:

- (i) Improving the construction of sidewalks, ramps and lifts by adapting them better to the movements of handicapped persons on foot or in wheelchairs. In particular, kerbs in line with pedestrian crossings shall be lowered or ramped by providing non-slip surfaces for inclines (ramps) and ensuring that they serve to warn blind persons;
- (ii) Installation of push-buttons at pedestrian-operated lights, positioned in such a way that they can be reached by persons using wheelchairs;
- (iii) Facilitation of the use of public transport systems, by applying appropriate measures regarding access to terminal facilities and vehicles;

(d) Consideration of the local needs of handicapped persons, e.g. by providing clearly marked routes in built-up areas, allowing easy access to shops, banks and other public services;

(e) Promotion, where feasible, of the organization and operation of a special urban transport system for use by handicapped persons unable to move about unaided (such as a service of specially-designed taxis or minibuses);

(f) Facilitation of the transport of handicapped persons, for instance, using private cars or taxis through a package of appropriate measures such as subsidies or reduction of taxes and/or tariffs;

(g) Encouraging:

- (i) The adaptation of normal production vehicles to facilitate the transport of handicapped persons;

- (ii) The adaptation of normal production vehicles to be driven by certain categories of handicapped persons;
- (iii) The development and manufacture of special vehicles to be used by handicapped persons;
- (iv) The standardization of materials used for the adaptation of the vehicles mentioned in subparagraphs (i) and (ii) above, and of the special vehicles mentioned in subparagraph (iii) above;
- (h) Use of the mass media and any other appropriate means to make the public aware of the problems of handicapped persons in road traffic;
- (i) Circulation of suitable information for handicapped persons regarding transport facilities and marked routes available to them.

4.7. Measures intended to facilitate the movement of elderly persons in traffic

Suitable action shall be taken in order to facilitate the movement of elderly persons and to increase their safety in traffic, taking inspiration from the following principles:

- (a) Efforts should be made to provide for proper maintenance of elements of road infrastructure, including its furnitures, important for the movement of the elderly;
  - (b) A systematic approach to the appropriate placement of road furniture and to the gradual removal of physical barriers such as elevated steps and stairs at interfaces between streets and buildings and transport systems, should be encouraged and implemented;
  - (c) The development of networks of continuous and safe footpaths should be encouraged and implemented wherever feasible in urban areas;
  - (d) Elderly persons walking at nightfall should be encouraged to wear bright and reflective clothing or reflective marks;
  - (e) The dissemination of information regarding the needs of the elderly related to transport systems and facilities should be supported at all decision-making levels;
  - (f) Mass media should be used together with other appropriate means to make all road users, including the elderly, aware of the particular problems concerning the movement of aged persons in road traffic. Courses for the elderly by organizations involved and/or by the police could be of great help.
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Annex 1

**"SCHOOL BUS" SIGN**

(Recommendation 2.2.)



Annex 2

**PERIODIC INSPECTION OF VEHICLES - CHECKS TO BE CARRIED OUT**

(Recommendation 2.6.)

LIST OF ITEMS TO BE INSPECTED

INTRODUCTION

This annex contains the list of items which it is considered should be included in a periodic vehicle inspection. The following general principles should apply:

- (1) The inspections should be capable of being carried out using techniques and equipment currently available, and without dismantling or removing any part of the vehicle.
- (2) The equipment used should be that which it is reasonable to provide at an inspection station.
- (3) The inspection should be capable of being performed within a limited time. A total time of 30 minutes is considered reasonable; it may vary according to the category of vehicle concerned.
- (4) Tests which are related to the condition of the vehicle and its suitability for use on the road but which are not considered essential in a periodic inspection have been marked (X). All the other items listed shall, if practicable, be considered as mandatory at a periodic inspection of vehicles.

This list identifies the vehicle components to be inspected, details the method of inspecting them and indicates the criteria to be used in determining whether or not the condition of the component is acceptable.

The "principal reasons for rejection" do not necessarily apply when the item under consideration is not prescribed in the regulations of the country in which the inspection is taking place; but when an item is prescribed and has to satisfy quantitative criteria in order to be acceptable, the requirements to be met are those defined in the applicable regulations. These requirements are not specified in this list, which merely refers to the need to comply with the regulations before an item can be regarded as satisfactory.

The headings numbered 1 to 6 apply to all categories of vehicle (passenger cars, goods-carrying vehicles, public service passenger vehicles, trailers). Additional checks relating to passenger safety, listed under headings 7 et seq., are provided for in the case of public service vehicles.

Where the method of inspection is described as "visual", this indicates that, in addition to looking at the item, the inspector will be able to handle and listen to it, etc.

Whenever time and circumstances permit, it is desirable that a road test to determine the handling qualities of the vehicle should be carried out.

No provision is made in this list concerning the identification of the vehicle, since this is a matter for the administrative arrangements in each country.

In certain countries, some of the items listed are subject to type-approval. No reference is made in this recommendation to verification of the approval mark, which should be carried out in the case of the countries concerned.

1. BRAKING EQUIPMENT		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
1.1. <u>SERVICE BRAKE</u>		
1.1.1. Mechanical condition	<p>Visual inspection with the vehicle on a pit or hoist whilst the brake is being operated, possibly with a pedal-presser.</p> <p><u>Note:</u> Unless otherwise specified, vehicles with power brakes should be inspected with the engine switched off.</p>	<p>(i) Any dangerous fractures, substantial deformation or badly corroded parts.</p> <p>(ii) Any excessive wear in pivots or absence of properly locked connectors.</p> <p>(iii) Components fouling leads or pipes.</p> <p>(iv) Any leaks in or damage to hydraulic/air/vacuum pipes or reservoirs.</p> <p>(v) Loose attachment of components.</p> <p>(vi) Incorrect reserve travel of operating pedal.</p> <p>(vii) Incorrect operation of pressure/vacuum warning device.</p> <p>(viii) Damaged or inoperative load-sensing and brake-proportioning valves.</p> <p>(ix) Any indicator light not working.</p>

1. BRAKING EQUIPMENT		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
1.1.2. Efficiency	<p>Test carried out with a static brake-testing machine or a road test using either an indicating or recording decelerometer. It is preferable for goods vehicles to be laden for this test. If, however, the vehicle is not laden:</p> <p>(i) For air brakes, measure the braking effort up to point of wheel slip and extrapolate to obtain</p>	<p>(i) The brake does not reach the minimum efficiency laid down in the regulations.</p>

1. BRAKING EQUIPMENT		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
1.1.3. Balance	<p>indication of braking effort applicable when vehicle is laden.</p> <p>(ii) For hydraulic brakes, measure the braking effort at pedal pressure up to point of wheel slip and extrapolate to obtain braking effort for laden vehicle in relation to pedal pressure.</p> <p>Test carried out on a static brake-testing machine or a road test.</p>	<p>(i) If a brake-testing machine is used, the braking effort from one wheel is significantly below that of the other wheel on the same axle.</p> <p>(ii) In a road test, the vehicle swerves appreciably to one side when the brakes are applied.</p>
1.1.4. Line pressure test (X)	<p>With a calibrated pressure gauge connected to the system, measure the line pressure when the brake is applied.</p> <p>Note: The accuracy of the vehicle pressure gauge can be checked at this test if the vehicle has a suitable connection for a calibrated pressure gauge to be connected.</p>	<p>(i) The line pressure is not at least the minimum prescribed in the regulations.</p> <p>Note: Except for vehicles fitted with hydraulic brakes, this item is mandatory if the vehicle is fitted with means for determining the line pressure.</p>

1. BRAKING EQUIPMENT		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
1.1.5. Exhaustors/compressors	<p>Observe the time required for vacuum or air pressure to reach the required level. Check that pressure relief valve is working.</p>	<p>(i) The pressure relief valve is not actuated within the time-limit laid down in the regulations.</p> <p>(ii) The pressure relief valve does not work.</p> <p>Note: This time is mandatory if the vehicle is fitted with means for verifying the actuation of the pressure relief valve.</p>

1. BRAKING EQUIPMENT		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
1.2. <u>Y</u> <u>EMERGENCY BRAKE</u>	<u>Note:</u> If the emergency brake is part of the service brake it may not be possible to carry out this test separately.	
1.2.1. Mechanical conditions	Carry out the inspection described in 1.1.1.  If the emergency brake can be isolated, carry out the inspection described in 1.1.2.	(i) Same reasons for rejection as in 1.1.1.  (i) Same reasons for rejection as in 1.1.2.
1.2.2. Efficiency	As for 1.1.3.	As for 1.1.3.
1.2.3. Balance	Carry out the inspection described in 1.1.1, for parking brake components.	(i) Same reasons for rejection as in 1.1.1, items (i), (ii), (iii), (vi) and (vii).
1.3. <u>PARKING BRAKE</u>		
1.3.1. Mechanical condition	Carry out inspection described in 1.1.2, or operate parking brake while the vehicle is on a slope, in accordance with the regulations.	(i) Same reason for rejection as in 1.1.2.
1.3.2. Efficiency		
1.4. <u>BRAKES ON TRAILERS</u>		
1.4.1. Mechanical condition	Carry out inspection described in 1.1.1, paying special attention to the couplings between trailer and drawing vehicle.	(i) Same reasons for rejection as in 1.1.1, items (i), (ii), (iii), (iv) and (v). (ii) Overrun brake mechanism not operating.
1.4.2. Automatic operation	Disconnect coupling between trailer and drawing vehicle.	(i) Brake not automatically applied when coupling is disconnected.
1.4.3. Efficiency	As for 1.1.2, using a static brake-testing machine. <u>Note:</u> Overrun brake	(i) See 1.1.2.

1. BRAKING EQUIPMENT		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
	efficiency can be checked by applying the handbrake while on a brake-testing machine.	
2. STEERING		
2.1. <u>STEERING COLUMN AND WHEEL</u>		
2.1.1. Steering wheel condition	<p>With roadwheels on ground rock steering wheel from side to side at right angles to column and apply slight downward and upward pressure. Visual examination of play.</p> <p>With the vehicle on a pit or hoist and the weight of the vehicle on the ground attempt to lift wheel in line with column, push wheel away and pull towards body. Visual examination of play and condition of flexible couplings or universal joints.</p>	<p>(i) Relative movement between wheel and column indicating looseness.</p> <p>(ii) Absence of retaining device on steering wheel hub.</p> <p>(iii) Fracture or looseness of hub, rim or spokes.</p> <p>(i) Excessive movement of centre of wheel up or down.</p> <p>(ii) Excessive radial movement of top of column.</p> <p>(iii) Defective flexible coupling.</p>

2. STEERING		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
2.1.3. Steering wheel play	With the vehicle on a pit or hoist and the weight of the vehicle on the roadwheels and with the roadwheels in straight ahead position, turn wheel clockwise and anticlockwise as far as possible without feeling resistance due to roadwheel being turned. Observe amount of play.	(i) Excessive play in steering. For example, movement of point on rim exceeding one-fifth diameter of wheel.
2.2. <u>STEERING</u>	With roadwheels off ground rotate steering	(i) Roughness in operation of gear.

<p><u>NG GEAR</u>  2.2.1. Gear condition</p>	<p>wheel from lock to lock and examine operation of steering gear visually.</p>	<p>(ii) Steering gear not operating correctly, or exhibiting excessive wear.  (iii) Excessive wear in sector shaft bushes.  (iv) Excessive end float of sector shaft.</p>
<p>2.2.2. Gear casing attachment</p>	<p>With the vehicle on a pit or hoist and the weight of the vehicle on the roadwheels, rotate steering wheel clockwise and anticlockwise and examine visually the attachment of gear casing to chassis.</p>	<p>(i) Steering gear casing attachment loose.  (ii) Elongated attachment holes on chassis.  (iii) Missing or fractured fixing bolts.  (iv) Steering gear casing cracked.</p>
<p>2.3. <u>STEERING LINKAGE</u></p>	<p>With roadwheels on ground rock steering wheel clockwise and anticlockwise and examine the steering components for wear, fractures and security.</p>	<p>(i) Components loose.  (ii) Excessive wear at joints.  (iii) Cracks or deformation in any component.  (iv) Absence of locking devices, seals or dust protection covers.  (v) Misalignment of components (e.g. track rod or drag link).  (vi) Any repairs by welding, heating or brazing.</p>
<p>2.3.1. Condition</p>		

2. STEERING		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
<p>2.3.2. Operation</p>	<p>With roadwheels off ground, rotate steering wheel from lock to lock and examine movement of linkage components.</p>	<p>(i) Any moving part of steering linkage fouling any part of chassis.  (ii) Steering stops not operating.</p>
<p>2.3.3. Power steering</p>	<p>With roadwheels on ground and engine running and the steering wheel being rocked sufficiently to move the roadwheels, examine the operation of the steering mechanism. With integral power steering: examination only to determine that mechanism is in working order.</p>	<p>(i) Mechanism not working.  (ii) Any fractures or insecurity of mechanism.  (iii) Any fluid leakage.  (iv) Misalignment and fouling of components.</p>

<p>2.4. <u>WHEEL ALIGNMENT</u></p> <p>2.4.1. Alignm ent of driving wheels (X)</p>	<p>Check with a wheel alignment tester (e.g. a slip gauge) that the driving wheels are properly aligned in accordance with the date provided by the manufacturer of the vehicle.</p>	<p>(i) Alignment of the driving wheels not in accordance with the vehicle manufacturer's instructions.</p>
<p>3. CHASSIS AND BODY ITEMS</p>		
<p>3.1. <u>PRINCIPAL PARTS OF CHASSIS</u></p> <p>3.1.1. Chassis or chassis frame</p>	<p>Visual examination with vehicle on a pit or hoist.</p>	<p>(i) Fracture or deformation of any side or cross member.  (ii) Defective flitch plates or fastenings.  (iii) Excessive corrosion affecting the rigidity of the assembly.</p>

3. CHASSIS AND BODY ITEMS		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
<p>3.1.2. Fuel tank and piping</p>	<p>Visual examination with vehicle on a pit or hoist */</p>	<p>(i)Unsafe tank or pipes.  (ii)Fuel leak or absence of effective filler cap.  (iii)Damaged pipes.  (iv)Any special requirement for liquefied gas fuel (LPG) not met.</p>
<p>3.1.3. Exhaust pipe and silencer</p>	<p>Ditto</p>	<p>(i)Leaking or insecure exhaust system.  (ii)Exhaust fumes entering passenger compartment.</p>
<p>3.1.4. Transmission</p>	<p>Ditto</p>	<p>(i)Loose or missing safety bolts.  (ii)Excessive wear in transmission shaft bearings.  (iii)Excessive wear in universal joints.  (iv)Deteriorated flexible couplings.  (v)Damaged or bent shaft.  (vi)Bearing housing cracked or worn.</p>

<p>3.2. <u>SUSPENSION COMPONENTS</u></p> <p>3.2.1. Springs</p> <p>3.2.2. Shock absorbers</p>	<p>Ditto</p> <p>Visual, and with special equipment if available.</p>	<p>(i)Insecure attachment of springs to chassis or axle.</p> <p>(ii)Any damaged or fractured spring component.</p> <p>(i)Insecure attachment of shock absorbers to chassis or axle.</p> <p>(ii)Damaged shock absorber.</p> <p>(iii)If suitable measuring apparatus is available, any shock absorber not functioning correctly.</p>
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\*/ Further examination if required under the regulations.

1. CHASSIS AND BODY ITEMS		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
3.2.3. Attachment of torque tubes, radius arms, wishbones and suspension arms	Visual and with special equipment if available.	(i) Insecure attachment of component to chassis or axle. (ii) Any component damaged or fractured.
3.3. <u>AUXILIARY COMPONENTS</u>		
3.3.1. Bumpers	Visual examination, not necessarily on pit or hoist.	(i) Loose or damaged bumper or damage liable to cause injury.
3.3.2. Spare wheel carrier	Ditto	(i) Any fracture or deformation in carrier. (ii) Spare wheel not securely fixed.
3.3.3. Mudguards (wings)	Ditto	(i) Any missing, loose or badly corroded mudguard. (ii) Mudguard with insufficient clearance for roadwheels.
3.3.4. Engine mountings	Ditto	(i) Damaged, loose or cracked mountings.
3.3.5. Trailer coupling	Visual examination of the coupling for wear and correct operation of its component parts with special attention to any safety device fitted. Do not disconnect trailer from drawing vehicle unless this can be done without use of workshop tools.	(i) Excessive wear in a component. (ii) Insecurity of coupling to chassis. (iii) Any safety device not operating correctly. (iv) Defective warning light.
3.3.6. Interior and exterior fittings	Visual inspection.	(i) Not in accordance with the regulations.

3. CHASSIS AND BODY ITEMS		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION

3.4. <u>ELECTRICAL EQUIPMENT</u>		
3.4.1. Electrical wiring	Visual examination with vehicle on a pit or hoist, also in engine compartment. For vehicles towing trailers, examine the electrical connection between the vehicles.	(i) Wiring not secure. (ii) Damaged or deteriorated insulation. (iii) Electrical connection between trailer and towing vehicle not functioning correctly or not in accordance with the regulations.
3.4.2. Battery	Ditto	(i) Battery insecurely fixed. (ii) Battery leaking.
3.5. <u>CAB (GOODS VEHICLES) PASSENGER COMPARTMENT (CARS)</u>		
3.5.1. Cab mounting	Visual examination with vehicle on a pit or hoist.	(i) Cab not mounted securely. (ii) Defective or missing retention or locking devices fixing cab to chassis.
3.5.2. Doors	Visual inspection	(i) Any door not opening or closing properly, or liable to open unexpectedly. (ii) Hinges, catches or pillars damaged or insecure.
3.5.3. Cab floor	Ditto	(i) Floor damaged or unsafe.
3.5.4. Cab step	Ditto	(i) Step or step frame unsafe or liable to cause injury to users.

3. CHASSIS AND BODY ITEMS		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
3.5.5. Driving seat	Visual inspection.	(i) Seat insecure or with defective structure. (ii) Defective adjustment mechanism. <u>Note:</u> For passenger cars, applies to all seats.
3.5.6. Driving controls	Visual inspection and operation.	(i) Any control necessary for safe operation of the vehicle not in good working order or not carrying out the function for which it is intended.
3.5.7. Mirrors	Visual inspection.	(i) Mirror does not afford an adequate view to rear.
3.5.8. Glass	Visual inspection.	(ii) Mirror attachment loose.  (i) Cracked or discoloured glass. (ii) Glass does not comply with the specifications laid down in the regulations.
3.5.9. Windscreen wipers	Visual inspection and operation.	(i) Wiper not sweeping or sweeping at a rate not in accordance with the regulations. (ii) Wiper blades not sweeping a sufficient area of windscreen.
3.5.10. Windscreen washers	Visual inspection and operation.	(iii) Wiper blade rubbers deteriorated.
3.5.11. Speedometer	Visual inspection or observation during road test.	(i) Washer liquid not directed to appropriate part of windscreen.  (i) Speedometer not operating. <u>Note:</u> An accuracy check is not necessary. (ii) Speedometer not capable of being illuminated.

3. CHASSIS AND BODY ITEMS		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
3.5.12. Field of vision	Inspection in driving seat, observing field of vision.	(i) Any obstruction within driver's field of vision which affects his field of vision in front and on the sides.
3.5.13. Audible warning device	Visual inspection and operation.  Visual inspection.	(i) Horn not operating. (ii) Horn control loose or not conveniently placed.
3.5.14. Seat belts	Visual inspection and operation.	(i) Seat belt damaged. (ii) Seat belt anchorage point badly deteriorated. (iii) Seat belt without approval mark.
3.5.15. Anti-theft device (X)	Visual inspection or observation during road test.	(i) Defective device.
3.5.16. Tachograph (X)	Visual inspection or observation during road test.	(i) Tachograph not operating if required by the regulations.
3.6. <u>BODY</u> ( <u>GOODS</u> <u>VEHICLES</u> )	Visual inspection with vehicle on pit or hoist.	(i) Body not located squarely on chassis. (ii) Insecure or missing fastening of body to chassis. (iii) Excessive corrosion at attachment points on integral bodies.
3.6.1. Security of body	Ditto	(i) Defective hinges, doors or retaining devices. (ii) Body panels or floor damaged to such an extent that it would be dangerous to carry a load.
3.6.2. Condition of body		(iii) Unsafe body pillars.

3. CHASSIS AND BODY ITEMS		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
3.6.3. Tipping or lifting gear or similar device	Visual inspection.	(i) Locking device defective. (ii) Not in accordance with the regulations.
3.7. <u>ROADWHEELS AND AXLES</u>	Visual examination with vehicle on pit or hoist.	(i) Any cracking or deformation of axle. (ii) Insecure attachment of axle to vehicle. (iii) Any repairs by welding, heating or brazing.
3.7.1. Axles	With vehicle on a pit or hoist rock each wheel whilst raised from ground and: (a) note the amount of movement between axle fork and swivel pin or at the suspension joints; (b) note the amount of movement of the wheel relative to the stub axle to assess play in wheel bearings. Lift wheel from bottom and note amount of vertical play in swivel pin and suspension linkage.	(i) Excessive wear in swivel pin and/or bushes or at the suspension joints. (ii) Excessive play or noise in wheel bearing. (iii) Excessive lift between stub axle and axle fork or suspension linkage. (iv) Swivel pin does not fit properly in axle beam fork.
3.7.2. Swivel pins, suspension joints, and wheel bearings	<u>Note:</u> The jacking points used should be appropriate to the type of suspension.	

3. CHASSIS AND BODY ITEMS		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
3.7.3. Roadwheels	Visual examination of both sides of each wheel with the vehicle on a pit or hoist.	(i) Any crack or defective welding. (ii) Any wheel nut missing or loose. (iii) Any wheel stud missing. (iv) Tyre retaining rings not properly fitted. (v) Any wheel dangerously distorted.
3.7.4. Roadwheel hubs	Visual examination.	(i) Any half-shaft nuts or studs missing or loose. (ii) Any nut not properly locked.
3.7.5. Tyres	Visual examination with vehicle on a pit or hoist.	(i) Tyres of insufficient capacity for load or operating speed. (ii) Tyres on same axle or on twin wheels of different sizes. (iii) Tyres on same axle of different types (radial/cross-ply). (iv) Any damage or cut to tyre. (v) Tread not in accordance with the regulations.

4. LIGHTING EQUIPMENT		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
4.1. <u>DRIVING LAMPS;</u> <u>PASSING LAMPS</u>		
4.1.1. Condition and working	Visual inspection.	(i) Any lamp defective. (ii) Any lamp of a type not approved.
4.1.2. Orientation	Use headlight orientation device to determine the horizontal and vertical aim of each headlight both as main and passing beam. The device should preferably be mounted on rails.	(i) Aim of any lamp not within the limits laid down by the regulations.
4.1.3. Colour	Visual inspection.	(i) Colour not in accordance with the regulations.
4.1.4. Switching and electrical connections	Visual inspection.	(i) Switching arrangements of lamps not in accordance with the regulations. (ii) The number of lamps which can be illuminated at the same time not in accordance with the regulations.
4.1.5. Intensity (X)	Using suitable equipment, determine the intensity of each lamp.	(i) Intensity not within the limits stipulated in the regulations.
4.1.6. Telltale	Visual inspection.	(i) Telltale not working or not in accordance with the regulations. (ii) Absence (if compulsory).

4. LIGHTING EQUIPMENT		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
4.2. <u>OTHER LAMPS</u>	Visual inspection.	See 4.1.1.
4.2.1. Condition and working	Visual inspection.	(i) Colour, position or intensity not in accordance with the regulations.
4.2.2. Compliance with the regulations	Visual inspection.	See 4.1.6.
4.2.3. Telltale	Visual inspection.	
4.3. <u>PROHIBITED LAMPS</u>	Visual inspection.	(i) Presence of a prohibited lamp.
4.3.1. Presence		
5. AUXILIARY EQUIPMENT		
5.1. <u>FIRE EXTINGUISHERS</u> (X)	Visual examination on vehicles where a fire extinguisher is prescribed by the regulations.	(i) Extinguisher not fitted. (ii) Extinguisher not of the correct type or capacity not in accordance with the regulations.
5.2. <u>WHEEL CHOCKS</u> (X)	Visual examination on vehicles where these are prescribed by the regulations.	(i) Wheel chocks not carried. (ii) Wheel chocks not in good condition or not suitable.
5.3. <u>WARNING TRIANGLE</u> (X)	Visual examination on vehicles where a warning triangle is prescribed by the regulations.	(i) Warning triangle not carried. (ii) Warning triangle not of correct type or not in accordance with the regulations.
6. ENVIRONMENTAL ITEMS		
6.1. <u>NOISE</u> (X)	Visual inspection; in doubtful cases, carry out a test.	(i) Silencer components defective or missing. (ii) The test result (measurement) exceeds the value prescribed by the regulations.

6. ENVIRONMENTAL ITEMS		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
6.2. <u>EXHAUST FUMES</u> (X)	Visual inspection; in doubtful cases, carry out a test.	(i) The level of dark exhaust fumes exceeds the figure laid down in the regulations.
6.3. <u>CO EMISSION</u> (X)	Carry out a test in accordance with the regulations.	(i) The CO level of emissions from the vehicle exceeds the figure laid down in the regulations.
6.4. <u>RADIO INTERFERENCE SUPPRESSION</u> (X)	Visual examination.	(i) Not in conformity with the regulations.
<u>Additional items to be inspected at testing stations in the case of public service passenger vehicles</u>		
7. MAINTENANCE OF CONFORMITY WITH REGULATIONS		
7.1. <u>VEHICLE</u> (chassis-body equipment)	Visual examination.	(i) The vehicle does not meet the requirements of the regulations for its category.
8. GENERAL CONDITION OF BODY		
8.1. <u>BODY</u>	Visual examination.	(i) General condition of body unsatisfactory. (ii) Leaks permitting the entry of water and smoke.
9. CHASSIS		
9.1. <u>FUEL STOP-CLOCK</u>	Visual examination on vehicles where a stop-clock is prescribed by the regulations.	(i) Fuel stop-clock not operating correctly.

9. CHASSIS		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
9.2. <u>FUEL TANK AND PIPING</u>  <u>EXHAUST PIPE</u>  <u>ENGINE COMPARTMENT</u>	Visual examination.	(i) Fire risk due to:  - Leaking fuel;  - Fuel tank or exhaust pipe shielding defective;  - Condition of engine compartment or shielding.
9.3. <u>ELECTRICAL EQUIPMENT</u>	Visual examination.	(i) Defective battery switch (if fitted).  (ii) Defective fuses.
9.4. <u>HEATING FUEL TANKS AND PIPES</u>	Visual examination.	(i) Fire risk due to leaking fuel or to defective shielding of the fuel tank.
10. EXITS		
10.1. <u>DOORS</u>  <u>EMERGENCY EXITS</u>	Visual examination.	(i) Defective operation.  (ii) Bad condition.  (iii) Defective operation of emergency control of doors.  (iv) Defective locking of emergency exits.  (v) Emergency exits not indicated.  (vi) Remote control of doors or telltales defective.  (vii) Emergency fittings for broken windows not carried.
10.2. <u>STEPS</u>	Visual examination.	(i) Defective condition.

11. INTERNAL FITTINGS		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
11.1. <u>DRIVING SEAT</u>	Visual examination.	(i) Driving seat in bad condition.  (ii) Defective seat adjustment mechanism (if fitted).  (iii) Defective special devices such as anti-glare shield or anti-dazzle screen.  (iv) Defective protection (shield, screen, etc.) of driver (if fitted).
11.2. <u>SEATS FOR PASSENGERS</u>	Visual examination.	(i) Seats in bad condition or improperly attached.  (ii) Flap-seats (if allowed) do not fold automatically.
11.3. <u>GANGWAYS</u>  <u>PLACE FOR STANDING PASSENGERS</u>	Visual examination.	(i) Floor in defective condition.  (ii) Fittings for the use of standing passengers defective.
11.4. <u>PASSENGER COMMUNICATION SYSTEM</u>	Visual examination and by operation.	(i) Defective alarm signal (if fitted).  (ii) Stop signal and telltale for driver (if fitted) not working.
11.5. <u>HEATING</u> (if fitted)	Visual examination and operation.	(i) Not operating correctly.  (ii) Emission of noxious gas.
11.6. <u>VENTILATION</u>	Visual examination and by operation.	(iii) Defective defrosting device (if fitted).  (i) Defective ventilation devices.

12. GLASS		
ITEM	METHOD OF INSPECTION	PRINCIPAL REASONS FOR REJECTION
12.1 <u>GLASS AND TRANSPARENT PANELS</u>	Visual examination.	(i) Do not comply with the regulations. (ii) Unsatisfactory condition.
13. INTERNAL LIGHTING EQUIPMENT AND NOTICES		
13.1. <u>INTERNAL LIGHTING AND DESTINATION DEVICES</u>	Visual examination.	(i) Lighting or destination devices defective or not in accordance with the regulations.
13.2. <u>NOTICES</u>	Visual examination.	(i) Any missing, erroneous or unreadable notice (number of passengers, etc.).
14. REGULATIONS CONCERNING THE TRANSPORT OF CHILDREN		
14.1. <u>DOORS</u>	Visual examination.	(i) Protection of the doors not in accordance with the special requirements for this type of use.
14.2. <u>MARKING</u>	Visual examination.	(i) Absence of special marking or marking not in accordance with the regulations.
15. SPECIAL EQUIPMENT		
15.1 <u>FIRE EXTINGUISHERS</u> (X)	Visual examination.	(i) Extinguishers not fitted. (ii) Extinguishers not of the correct type, capacity not in accordance with the regulations, certification out of date, etc.
15.2 <u>INSTALLATION FOR FOOD PREPARATION</u> (cold or hot)	Visual examination.	(i) Installation not in accordance with the regulations. (ii) Installation so defective as to be dangerous to use.
15.3 <u>SANITARY INSTALLATIONS</u>	Visual examination.	(i) Installations not in accordance with the regulations.

Annex 3

**GOOD-PRACTICES CODE FOR LOADING AND STOWAGE METHODS**

(Recommendation 2.8.)

1. General remarks

Compliance with the rules stated in this Code does not remove the obligation to conform to the provisions relating to loading of vehicles set forth in the Convention on Road Traffic (E/CONF.56/16/Rev.1, Article 30), and provisions relating to the carriage of dangerous goods set forth in the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) where these are applicable.

2. Basic principles

- 2.1. The vehicle, the loading space and accessory equipment shall be appropriate, as designed or fitted, to the nature of the load to be carried. The loading space shall be adequate for its purpose i.e. it shall be in good condition and firmly secured to the chassis. Inter alia, the body, platform, walls, bars, struts and flaps, etc. shall be quite free of cracks, and their locking devices shall be in perfect working condition. The examples quoted in this code are for illustration only. Methods other than those recommended may be used, provided they produce the same results.
- 2.2. All equipment used for anchoring the load shall be in good condition and be strong enough to hold the load.
- 2.3. It shall be the employer's duty to give the driver of a vehicle used for goods transport all necessary instructions regarding the correct use of the equipment supplied for loading the vehicle and for securing the load.

3. Loading rules

- 3.1. The load shall be distributed as uniformly as possible over the whole loading platform. The heaviest goods shall be placed as far down as possible, and irregularly shaped objects shall be arranged alternately except in the case of loads having one extremity with sharp edges, which shall be so placed that this extremity points to the rear.
- 3.2. The load shall be placed against the front wall of the loading platform, but, where this is impossible, it shall be wedged against the wall as prescribed below.
- 3.2.1. As far as possible, the load shall be redistributed after each partial unloading so as to maintain the overall balance. In the case of compartmented tanker vehicles used for the carriage of liquids or powders, consecutive unloading shall be so carried out as not to jeopardize the overall balance.
- 3.2.2. The load shall not be leant against a wall not designed for that purpose.
- 3.2.3. The weight of heavy loads of small dimensions shall be distributed by means, for example, of side-members, a platform or a bearer cradle.

4. Stowage rules

4.1. Once the load is secured, the kinetic energy transmitted by the anchoring device shall be finally absorbed by the chassis of the vehicle.

4.2. Accordingly, the loading platform and the device securing it to the chassis shall be strong enough to meet the stress transmitted. Particularly heavy loads (machinery, cable drums, etc.) shall be securely anchored directly to the chassis.

4.3. The load may be stowed by one of the following methods:

4.3.1. Use of ropes, cables, etc.

The ropes or cables shall be sufficiently taut and shall be checked from time to time, the first time shortly after departure, and shall, if possible, be tightened up if necessary.

4.3.2. Protection of the load with tarpaulins or the like

The tarpaulins shall be fully stretched and well lashed down so as to prevent them from being blown off when the vehicle is in motion. Cross-cross packropes and elastic fasteners are recommended for this purpose. The tarpaulin may be replaced by a net or similar means of protection.

4.3.3. Use of clamps, bolts, etc.

Where the load is secured by this method, care shall be taken to ensure that the loading platform and other securing components will take the stresses exerted on the surface and edges at the securing points.

4.3.4. Use of metal chains or cables

The load shall be secured or lashed down with chains or steel cables which must be tautened and kept taut by means of a suitable device. Chains and steel cables used for this purpose shall be of adequate strength. Splicing of chains is only permissible if special splicing shackles are used.

4.3.5. Use of blocks, wedges, etc.

Blocks, wedges, bars, props, rubber pads, etc. may be used to prevent the load from rolling, shifting, or overturning. Care should then be taken to ensure that stowing equipment is stout

enough for the type of load, with special regard to its centre of gravity.

5. Special cases

5.1. Containers

5.1.1. The following requirements are to be applied to the carriage of containers on motor vehicles, drawbar trailers or semitrailers which are not specially constructed or equipped with special locking devices for this purpose.

5.1.1.1. Containers shall be loaded and secured according to the principles set out in paragraphs 4.3.2., 4.3.3. and 4.3.4. above, except that ropes shall not be used for stowing.

5.1.1.2. The restraining devices used, including a headboard when fitted, shall be of sufficient strength to prevent forward movement of the container during braking and therefore capable of resisting the effect of a horizontal force of 800 kgf per tonne of the maximum permissible mass of the container.

5.1.1.3. Chains, hooks, clamps, shackles, etc. used to secure a container must have a load resistance sufficient to meet the requirements of paragraph 5.1.1.2. Where chains are used, the angle between the lower and upper attachment points shall not be more than 60° to the horizontal.

5.1.1.4. The container should be restrained by at least two chains on each side, attached to the upper corner castings or to the lifting rings where these are provided.

5.2. Forest products loaded lengthwise (logs, squared timber and pulpwood)

5.2.1. Each outer log or piece of timber shall be supported by at least two uprights; this means that pieces shorter than the distance between two uprights are placed in the interior of the load. The uprights shall be secured to the transverse cradle, to the gantry or to the platform and shall be fitted with top chains. Where a pile is supported by only two pairs of uprights, the ends of the outer logs shall extend at least 30 cm beyond the uprights.

5.2.2. The logs shall be arranged in such a manner as to ensure an even distribution of the load. Each pile shall be lashed together and the lashing secured by a suitable device. A single chain stretched between the uprights, even if well secured, is not enough. For barked roundwood at least two lashings are required.

5.3. Forest products loaded breadthwise (pulpwood, firewood, etc.)

5.3.1. The load shall be divided into piles measuring not more than 2 m in the direction of the vehicle's length.

5.3.2. The outer pieces in each pile shall be supported either by a partition or by at least two uprights.

5.3.3. Each pile or the whole load shall be lashed together and the lashing secured by means of a suitable device. A single chain stretched between the uprights, even if well secured, is not enough. For barked roundwood at least two lashings are required.

- 5.3.4. Precautions shall be taken to avoid any sideways slip of the load, for example by placing an upright level with each pile.
- 5.4. Loads of great length
- 5.4.1. Loads of great length shall be so secured as to prevent their shifting either lengthways or sideways.
- 5.4.2. Tubes, metal bars, etc. shall be tied together.
- 5.4.3. In the transport of outsize lengths, such as steel girders, or concrete piles or posts, special care shall be taken to ensure that they are firmly anchored lengthwise. The method of testing and evaluation of the headboard should be that recommended in paragraph 1.27 of the Consolidated Resolution on the Construction of Vehicles (R.E.3). The headboard shall provide restraint of 800 kgf per tonne of the permissible useful load subject to a maximum of [7,500 kgf].
- 5.5. Transport of vehicles
- 5.5.1. Any vehicle loaded on another vehicle shall be immobilized and made fast with cables, chains or straps of sufficient strength, tautened by means of a suitable device. If chocks are used to hold a vehicle placed lengthwise, they shall be placed in front of and behind each wheel.
- 5.5.2. If the vehicle carried is equipped with mobile parts, such as lifting or excavation equipment, these mobile parts shall either rest on the platform or be made fast by appropriate means. The dismantling of the crane arm shall be required only in those cases where its presence during transport may constitute a safety hazard.
- 5.6. Sheet metal, wood-fibre board, etc.
- 5.6.1. Sheet metal, especially greased sheets, shall be stacked and bound, preferably with metal strip. These stacks shall be secured to the vehicle unless it is equipped with side walls or uprights.
- 5.6.2. If the stacks are bound with wire, the bindings must be protected. The distance between two consecutive bindings shall not exceed 70 cm and at least two bindings shall be used on each face. Only vehicles satisfying the requirements laid down in paragraph 1.27. of the Consolidated Resolution on the Construction of Vehicles (R.E.3) on protection of the occupants of cabs of commercial vehicles against shifting of loads may be used for this kind of transport.
- 5.7. Cable drums, paper rolls, etc.
- 5.7.1. Except in the case of vehicles specially designed or adapted for transport of these goods such as, for example, vehicles with dips in the loading-platform floor, such objects shall be properly immobilized and secured. Particular care shall be taken in the case of large cable drums carried on flat loading platforms, to prevent rolling and tipping. Drums shall be placed against each other. It may be necessary for them to be supported by square-edged wooden bearers so that the load will be distributed for the protection of the platform. The front drum shall be wedged to prevent forward movement and the rear drum wedged to prevent rearward movement. All drums shall be securely chained by passing

chains through the centre of the drum. Fastening of the chains so as to prevent rolling will provide additional protection against tipping on side slopes and corners.

5.8. Bulk loads

5.8.1. Bulk loads (stone, gravel, sand, scrap, etc.) may only be carried in vehicles with sufficiently high walls, even at the back of the loading platform. The rear wall is not, however, necessary where the loading platform itself is raised sufficiently at the rear. Where the rear wall is hinged, it shall be properly locked.

5.8.2. Light materials (sawdust, ash, etc.) that are liable to be blown away shall be covered.

5.9. Packaged goods

Care shall be taken to ensure that the piles are well secured from top to bottom by the side walls or by any suitable restraining device. Where necessary, the load shall be covered over with a tarpaulin.

5.10. Pallets

5.10.1. The goods shall be secured to the pallets unless the latter have their own vertical walls.

5.10.2. The pallets shall be secured to the vehicle unless the latter is equipped with vertical walls.

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Annex 4

**MINIMUM REQUIREMENTS FOR PROFESSIONAL DRIVING  
INSTRUCTION - DRIVING INSTRUCTORS**

(Recommendation 3.1.)

ELIGIBILITY FOR RECOGNITION

1. To be eligible for recognition as laid down in accordance with paragraph (d) of this Recommendation, the applicant shall fulfil the following conditions:
  - 1.1. Age: Candidates shall be at least 21 years of age.
  - 1.2. Fitness: Candidates shall meet necessary physical, psychological and other requirements as specified by the competent authorities and previous circumstances shall not be such as to make them unsuitable to exercise the profession.
  - 1.3. Driving permit and experience:
    - 1.3.1. Candidates shall hold a driving permit valid for at least the category or categories of vehicles on which they will be instructing.
    - 1.3.2. Candidates shall furnish proof that, within the course of at least the preceding three years, they have gained sufficient driving experience for the category or categories of vehicles on which they will be instructing.
    - 1.3.3. During the three years prior to application, and until their recognition, they shall not have been disqualified from driving. Candidates may be considered ineligible for recognition if they have been found guilty of an infringement of traffic regulations which constituted a serious danger to road safety.
  - 1.4. Professional ability:

Candidates shall satisfy the competent authority, by passing theoretical and practical examinations, that they:

    - 1.4.1. Have appropriate knowledge of educational methods and applied psychology relevant to driving tuition, and the ability to put these into practice;
    - 1.4.2. Have a thorough knowledge of the subjects of tuition required in annex 5 to this Consolidated Resolution;
    - 1.4.3. Have driving ability to a standard significantly higher than that required in driving tests appropriate to the category or categories of vehicles on which they will be instructing.

DISQUALIFICATION

2. If instructors' driving permits are suspended, the competent authority shall decide if they may continue to give theoretical instruction.

3. If instructors are found guilty of an infringement of traffic regulations which constituted a serious danger to road safety, or of an offence which casts doubt on their suitability to continue acting as an instructor, their recognition shall be reviewed by the competent authorities.

#### MAINTENANCE OF STANDARDS

4. The competent authorities shall take steps as necessary to ensure that instructors maintain the standards required in paragraphs 1.2. and 1.4. above.
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Annex 5

**GUIDELINES FOR PROFESSIONAL DRIVING INSTRUCTION -  
SCOPE OF TUITION**

(Recommendation 3.1.)

THEORETICAL

1. Tuition shall be such as to ensure that the pupil has, with special reference to the use of vehicles of the category for which instruction is being given:
  - 1.1. Knowledge of legislation, rules and regulations relating to the use of vehicles, traffic signs, signals and markings, and of their meaning;
  - 1.2. Basic knowledge and understanding of the technical regulations relating to vehicle safety in traffic, in particular the use of equipment designed to improve the safety of vehicles in traffic;
  - 1.3. Knowledge and understanding of rules relating to the driver, in so far as they concern road safety, including, for drivers of category C and D vehicles, rules relating to hours of work and rest periods;
  - 1.4. Knowledge and understanding of the rules applicable to the driver concerning correct behaviour in case of accidents;
  - 1.5. Adequate knowledge and understanding of the importance of road safety matters, and especially of the following accident factors:
    - 1.5.1. Road traffic dangers, such as danger in overtaking manoeuvres, wrong estimate of speed and distance (effects on braking and safety distances), influence of the quality of the road surface, the time of day, the weather (snow, ice, rain, fog, side wind, aquaplaning), actions of other road users, and in particular of elderly people and children;
    - 1.5.2. Factors likely to reduce the driver's vigilance and his physical and mental fitness, such as fatigue, illness, alcohol and other drugs, etc.;
    - 1.5.3. Safety factors relating to the stowage of loads and to the occupants of vehicles;
  - 1.6. Category A and B vehicles only: basic knowledge of those items of the vehicle which are vital to the protection of its occupants and to road safety, such as brakes, signalling and lighting devices, tyres, oil levels, safety belts, etc.;
  - Category C, D and E vehicles only: knowledge of the function and simple maintenance of the items mentioned above and of all other vehicle parts and devices of particular importance to safety and an ability to identify (diagnose) typical defects which may have a negative effect on traffic safety;
  - 1.7. Knowledge of the action which may be required in order to assist road accident victims;
  - Category D vehicles only: knowledge of action which may be required to assist passengers in case of a road traffic accident or physical indisposition and of arrangements for evacuation of passengers in emergency;

- 1.8. Knowledge of the value and the correct use of safety belts;
- 1.9. Knowledge of the reasonable principles of economical driving (fuel economy).

PRACTICAL

2. Instruction shall be given in:
  - 2.1. Control of the vehicle, including:
    - Starting on an uphill gradient;
    - Categories B, C, D and E vehicles only: reversing and reverse turning;
    - Braking and stopping at various speeds, including stopping in an emergency if road and traffic conditions so permit;
    - Category D vehicles only: Braking and stopping at various speeds taking duly into account the safety and comfort of the passengers; Braking and stopping in emergency taking duly into account safety of the passengers and other road users;
    - Categories B, C, D and E vehicles only: oblique parking, parking on upward and downward gradients;
    - Turning in a restricted space;
    - Category A vehicles only: driving at slow speed.
  - 2.2. Behaviour in traffic, including:
    - Correct position on the carriageway;
    - Proper negotiation of right and left bends;
    - Correct manoeuvring in changing lanes and turning off at junctions;
    - Alertness to other traffic;
    - Correct behaviour at intersections, taking full account of all movements of other road users, with special regard to right of way;
    - Driving at appropriate speeds;
    - Use of rear-view mirrors;
    - Correct advance warning of intended manoeuvres;
    - Correct operation of vehicle lighting, warning devices and other ancillary controls;
    - Driving with due care and consideration for pedestrians and other road users;
    - Correct behaviour with regard to public transport vehicles;
    - Compliance with traffic light signals and instructions given by authorized officials;
    - Appropriate action on authorized signals given by other road users;

Respecting traffic signs and signals, road markings and pedestrian crossings;

Maintaining appropriate following and lateral distances;

Correct overtaking;

Correct use of safety belts and other traffic safety devices if the vehicle is so equipped.

2.3. Visual scanning strategy, including:

Systematic collection of information well ahead, to the sides and to the rear of the vehicle;

Identification of situations endangering the safety of road traffic, assessment of the level of potential or actual risks, prediction of possible changes and developments in the situation some seconds ahead, and ability to take action according to defensive driving. Part of the training in visual scanning may be conducted in classroom units by use of films, slides, etc.

3. The tuition referred to in paragraph 2 above shall be carried out on roads of all types and in both daytime and night conditions wherever possible, so that the pupil shall have experience in meeting the various hazards he is likely to encounter when driving. On motorways, however, driving lessons shall be given only to learner drivers who, in the opinion of their instructor, have already gained adequate experience of driving on ordinary roads. Such lessons may be prohibited during periods of heavy traffic on the motorway in question.

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Annex 6

**GUIDELINES FOR THE METHODS OF PROFESSIONAL TUITION**

(Recommendation 3.1.)

1. Principal guidelines
  - 1.1. Professional tuition methods shall be adapted to both the theoretical and practical aspects of the knowledge to be taught to learner drivers as set out in annex 5. These aspects shall, as far as possible, complement each other throughout the training period.
  - 1.2. Professional tuition methods shall be such as to ensure that learner drivers acquire the knowledge and skill needed to have full control of a vehicle and to take the correct decision so as to behave in a reliable manner in traffic.
2. Methods of theoretical tuition
  - 2.1. Theoretical tuition shall be organized in such a way that learner drivers can follow the entire programme and, taking into account their individual characteristics (e.g. age, formation, social background), duly assimilate it.
  - 2.2. Modern pedagogical methods shall be used to encourage learner drivers to take an active part in the lessons, in particular through group discussions.
  - 2.3. Teaching aids shall be so conceived that they present visually the traffic situation discussed. Books, drawings and pictures, or audio-visual equipment (films or slides) shall, as far as possible, present situations as seen from the driver's seat of a vehicle. They shall be made in cooperation with educational experts, use modern teaching principles and illustrate facts drawn from national and international road traffic research and what is known about circumstances surrounding accidents.
  - 2.4. Governments shall pay special attention to the running of the courses and fix, when appropriate, the minimum possible length of courses and the scope of syllabuses according to:
    - 2.4.1. The category of vehicle;
    - 2.4.2. The equipment prescribed for use in driving schools;
    - 2.4.3. The methods of instruction.
  - 2.5. Theoretical tuition shall be organized in such a way that:
    - 2.5.1. The general pedagogical principle of increasing difficulty is respected;
    - 2.5.2. The knowledge of matters taught at previous lessons is checked as far as possible throughout the tuition programme;
  - 2.5.3. Legal prescriptions are explained as far as possible in relation to real traffic situations, with the use of everyday expressions and with the appropriate teaching aids;
  - 2.5.4. The required technical knowledge of vital parts of vehicles is explained with the use of drawings (exploded views) models and illustrations;

- 2.5.5. Risks related to the physical forces of moving vehicles, correct attitudes for safe driving and accident factors in traffic are taught with the use of audio-visual aids, drawings and illustrations;
- 2.5.6. Learner drivers are aware of the possible danger, and the consequences thereof, resulting from their physical condition, and the effect of alcohol and other drugs and their interaction. Teaching aids, such as films and audio-visual equipment shall be used;
- 2.5.7. First aid training is given by a competent instructor;
- 2.5.8. Learner drivers are motivated and encouraged to make use of safety equipment such as restraint systems for vehicle occupants or crash helmets for riders of two-wheeled motor vehicles. This should be taught with the use of films or other appropriate teaching aids.
- 2.5.9. The influence of road accidents on the social sphere and the environment is studied.
3. Methods of practical tuition
- 3.1. Introduction
- 3.1.1. This programme is a general training programme from which the instructor may deviate in the cases where it is appropriate, e.g. if the learner driver has already some knowledge and ability in controlling his vehicle.
- 3.1.2. All the exercises are to be repeated until the learner driver is capable of acting appropriately in the given situations.
- 3.1.3. In particular in the early stages the learner driver should be allowed if necessary to rest at frequent intervals.
- 3.1.4. Tuition methods shall be such as to ensure a proper integration between the theoretical and the practical instruction so that learner drivers may put their knowledge into practice. It is recommended, therefore, to start learning drivers on appropriate sites.
- 3.1.5. From the first stage of instruction the learner driver shall practice the principles of an economical style of driving, which is preferable not only from the viewpoint of fuel economy, but also in offering additional advantages (tyres, maintenance, environmental pollution, road safety, etc.).
- 3.1.6. This programme is drafted for right-hand traffic. When used in countries with left-hand traffic "right" shall be replaced by "left" and "left" by "right".
- 3.2. Drivers of two-wheeled power-driven vehicles of Category A (motor cycles)
- First level
- Off-the-road instruction
- Many of the manoeuvres should first be demonstrated by the instructor and then be imitated by the learner driver.

3.2.1. Advice on suitable clothing - winter and summer

- 3.2.1.1. One-or two-piece riding suit; safety colours.
- 3.2.1.2. Gloves.
- 3.2.1.3. Footwear.
- 3.2.1.4. Helmets.
- 3.2.1.5. Devices to protect the face and eyes of the driver; advice against the use of darkened visors or spectacles at night.

3.2.2. Brief introduction to the motor cycle

- 3.2.2.1. Hand controls: steering, clutch, hand-brake, lighting, ignition, indicators, petrol on/off switch, throttle, horn.
- 3.2.2.2. Foot controls: rear brake, gear-change lever.
- 3.2.2.3. Instruments: speedometer, rev counter and warning lamps.

3.2.3. Exercises with engine switched off

- 3.2.3.1. Placing motor cycle on and off stand.
- 3.2.3.2. Wheeling motor cycle for weight and balance, straight and turning right and left.
- 3.2.3.3. Learner driver mounts motor cycle wearing helmet.
- 3.2.3.4. Seating position for comfort and maximum control.
- 3.2.3.5. Position of feet on foot rests.
- 3.2.3.6. Knee position.
- 3.2.3.7. Learner driver walks the motor cycle until control over steering and brakes is gained.
- 3.2.3.8. Pre-starting up routine.
- 3.2.3.9. Operation of controls without looking at them.

3.2.4. Exercises with engine switched on

- 3.2.4.1. Learner driver starts engine under supervision on level ground; automatic or kick start.
- 3.2.4.2. Attention drawn to importance of long swing on kick start.
- 3.2.4.3. Operation of twist grip in neutral, engine running.
- 3.2.4.4. Operation of front brake without disturbing twist grip setting.
- 3.2.4.5. Engine running, operate clutch.
- 3.2.4.6. Select first gear (instructor stands by in case clutch is released).
- 3.2.4.7. Select neutral.
- 3.2.4.8. Learner driver selects first gear, engine running.

- 3.2.4.9. Slowly let in clutch;  
Note biting point;  
Effect on engine and change of engine note.
- 3.2.4.10. Learner driver moves off a few metres at a time, slowly;  
Use of rear brake to stop;  
Inculcation of habit of looking behind before moving off.
- 3.2.4.11. Short ride in first gear.
- 3.2.4.12. Exercise stopping at specific points without stalling engine.
- 3.2.5. Exercise climbing low obstacles
- 3.2.5.1. Stops with front wheel touching a 5-10 cm high kerb.
- 3.2.5.2. Both feet on the ground, the learner driver has to climb the kerb with the front wheel.
- 3.2.5.3. Careful operation of the clutch and keeping the number of revolutions unchanged at sufficiently high level.
- 3.2.5.4. Stop immediately after front wheel is at the kerb.
- 3.2.5.5. Repeat with rear wheel.
- 3.2.5.6. Select neutral, stop engine, place motor on stand without help after returning to starting point, switch off petrol feed.

Second level

Off-the-road exercises

- 3.2.6. Slow riding
- 3.2.6.1. Demonstrate "minimum non-snatch" in first gear with clutch fully engaged.
- 3.2.6.2. Below this speed (3.2.6.1), demonstrate control by clutch slip and use of rear brake.
- 3.2.6.3. Explain dangers of excessive clutch slip.
- 3.2.7. Very slow riding in a straight line, varying speed
- 3.2.7.1. With a little steering right and left.
- 3.2.7.2. Turning in a fairly restricted space.
- 3.2.7.3. Turning - figure of eight (speed of angle of inclination to be gradually increased).
- 3.2.7.4. Weaving through a staggered line of posts.
- 3.2.8. Practise as in paragraph 3.2.7. until constant speed is obtained without resorting to the use of the feet to maintain balance

3.2.9. Simulation of traffic manoeuvres

- 3.2.9.1. Demonstrate correct procedure for turning right.
- 3.2.9.2. Practise right turn until competent.
- 3.2.9.3. Check procedures performed in correct order: look, signal, manoeuvre; avoid swinging out beyond the intended trajectory on entering or leaving the turn.
- 3.2.9.4. Repeat for left turns; avoid cutting the corner.

NOTE: To perform the exercises set out in paragraphs 3.2.10. and 3.2.11., the learner driver must be instructed in the basic use of the brakes.

3.2.10. Gear changing

- 3.2.10.1. Changing up, matching engine and road speeds.
- 3.2.10.2. Changing down, matching engine and road speeds.
- 3.2.10.3. Progressive acceleration.
- 3.2.10.4. Changing down to compensate for loss of road speed.
- 3.2.10.5. Use of the engine as a brake.
- 3.2.10.6. Stopping without gear changing at a given point.

3.2.11. Starting the engine and moving off uphill or downhill

- 3.2.11.1. Use of brakes when starting:
  - Hand-brake when kick starting,
  - Foot-brake when automatic starting.
- 3.2.11.2. Keeping the motor cycle stationary when engine is running.
- 3.2.11.3. Appreciation of the extra power required for moving off uphill.
- 3.2.11.4. Controlled release of brakes and clutch.

3.2.12. Braking exercises including emergency stops

NOTE: The braking exercises, including braking on bends and downhill, are repeated several times with increasing initial speed; stopping distances are compared. Exercises gradually proceed to blocking and immediate measured release. Various characteristics of the road surface, including low static friction values (gravel, sand, wet surface), make the exercise increasingly difficult.

- 3.2.12.1. Foot-brake only.
- 3.2.12.2. Hand-brake only.
- 3.2.12.3. Both brakes.
- 3.2.12.4. Emergency braking:
  - Without stalling engine;
  - Without loss of balance;

With the simultaneous use of front and rear brakes;  
Without skidding.

3.2.13. Emergency starting

3.2.13.1. Starting by rolling downhill or pushing.

3.2.14. Special exercise

3.2.14.1. Driving with pillion rider.

3.2.14.2. Evasive manoeuvre:  
Combined steering and braking to avoid unexpected obstacles.

Third level

Driving on roads with low traffic density and accompanied by instructor driving own motor cycle or car.

- 3.2.15. Right turns as far as possible to avoid crossing traffic lanes
- 3.2.15.1. At slow speed using all gears.
- 3.2.15.2. Practise:
  - Rear observation;
  - Signals;
  - Braking;
  - Gear changing;
  - Ensuring that timing is correct in relation to hazard.
- 3.2.16. Check correct use of brakes
- 3.2.16.1. Where safe, quick stops at instructor's command.
- 3.2.16.2. Practise until well controlled.
- 3.2.16.3. Emergency stops.
- 3.2.17. Passing stationary obstacles

Rear observation, signal change of position on road allowing extra space for occupied vehicles (driver's door may open suddenly).
- 3.2.18. Overtaking
- 3.2.18.1. Practise method, engage lower gear, rear observation, signal change of position on road, ensure that there is no oncoming traffic.
- 3.2.18.2. Overtake quickly.
- 3.2.18.3. Avoid cutting in when re-positioning on right.
- 3.2.19. Being overtaken when about to pass a stationary obstacles
- 3.2.19.1. Use of brakes, when necessary emergency braking.
- 3.2.19.2. Slow down; use of the engine as brake.
- 3.2.19.3. Changing down to compensate for loss of speed.
- 3.2.19.4. When overtaken, proceed as in paragraph 3.2.17.
- 3.2.20. Turning left across oncoming traffic into side roads

Practise correct procedure after demonstration by instructor (instructor should ride behind learner driver for protection from other traffic).
- 3.2.21. Exercises related to the negotiation of intersections
- 3.2.21.1. Approaching intersections.
- 3.2.21.2. Crossing intersections.
- 3.2.21.3. Turning right at intersections.

- 3.2.21.4. Turning left at intersections.
- 3.2.21.5. Negotiating intersections with good visibility.
- 3.2.21.6. Negotiating intersections with poor visibility.
- 3.2.21.7. Negotiating roundabouts.
- Fourth level
- 3.2.22. Simple situations in heavy traffic
- 3.2.22.1. Check response to traffic signs, signals and road markings.
- 3.2.22.2. Frequent rear observation.
- 3.2.22.3. Following distance.
- 3.2.22.4. Lane discipline:
  - For normal progress;
  - Prior to and after passing or overtaking;
  - Prior to turning;
  - In the absence of road markings.
- 3.2.22.5. Intersections:
  - Controlled;
  - Uncontrolled.
- 3.2.23. Pedestrians and more complicated situations
- 3.2.23.1. Response to pedestrians (in particular children and aged persons) and to pedestrian crossings, at school sites, factory entrances and exits, etc.
- 3.2.24. Behaviour of other road users (other motor cycles, car drivers, heavy vehicles, parked vehicles, etc.).
- 3.2.24.1. Such knowledge in relation to heavy vehicles includes:
  - 3.2.24.1.1. Awareness, when about to cross an intersection, that a heavy vehicle approaching on the left may hide a vehicle about to overtake it, and consequently waiting until the lorry or coach has passed.
  - 3.2.24.1.2. Awareness that a heavy vehicle hides what is in front of it and consequent prudence by following motor cyclists until the situation is clear (e.g. before a road narrowing or other bottleneck).
  - 3.2.24.1.3. Awareness that, when a heavy vehicle turns, it cuts into the inside of its corner and of the 'blind spot' for the driver on either side of his cab, the motor cyclist consequently should not filter alongside when the lorry or coach is stationary but about to start up and possibly turn.
  - 3.2.24.1.4. Awareness that, when turning, a heavy vehicle 'sweeps' the outside of its turning circle, consequently the motor cyclist should leave

it enough space to manoeuvre. (This situation is accentuated in the case of a load overhanging the end of a lorry).

- 3.2.25. Driving at higher speed (over 70 km/h)
- 3.2.25.1. As in paragraph 3.2.21.
- 3.2.25.2. Attention to spread of gears over higher speeds permitted.
- 3.2.25.3. Attention to increased braking distances involved with higher speed.
- 3.2.25.4. Stopping and rejoining from lay-bys.
- 3.2.25.5. Entering and leaving motorways and similar roads.
- 3.2.26. Driving at night or in inclement weather conditions
- 3.2.26.1. Use of lamps in accordance with legal requirements.
- 3.2.26.2. Consider use of passing lamp by day.
- 3.2.26.3. Relate speed to the view ahead.
- 3.2.26.4. Action when subjected to dazzling.
- 3.2.26.5. Selective use of passing lamp and driving lamp.
- 3.2.26.6. Use of rear fog lamp.
- 3.3. Drivers of motor vehicles of Category B
- First level
- 3.3.1. Exercises with the engine switched off
- 3.3.1.1. Appropriate driving posture.
- 3.3.1.1.1. Operation of the release and locking device of the driver's seat;
- 3.3.1.1.2. Adjustment of the steering wheel if adjustable;
- 3.3.1.1.3. Adjustment of the driver's seat to the correct driving position;
- 3.3.1.1.4. Adjustment of the rear-view mirrors (interior and external);
- 3.3.1.1.5. Fastening, detachment and adjustment of the safety belt or explanation if there is another restraining device;
- 3.3.1.1.6. Position of the feet at the pedals.
- 3.3.1.2. Operation of the gear-shift lever (automatic gearbox: operation of the selector lever):
- 3.3.1.2.1. Position of the hand;
- 3.3.1.2.2. Position of the neutral gear;
- 3.3.1.2.3. Gear-shifting procedure.
- 3.3.1.3. Operation of the parking brake:

- 3.3.1.3.1 Release;
- 3.3.1.3.2. Application.
- 3.3.1.4. Explanation of the operation of the main safety equipment:
  - 3.3.1.4.1. Instruments and tell-tales;
  - 3.3.1.4.2. Lights and light-signalling devices;
  - 3.3.1.4.3. Audible warning device;
  - 3.3.1.4.4. Windscreen and rear-window cleaning;
  - 3.3.1.4.5. Air-conditioning of the passenger compartment;
  - 3.3.1.4.6. Remote controls.
- 3.3.2. Exercises with the engine switched on
  - 3.3.2.1. Use of the ignition key and exercises for driving readiness.
    - 3.3.2.1.1. Starting the engine;
    - 3.3.2.1.2. Running the engine at different speeds;
  - 3.3.2.2. Preparation for driving off:
    - 3.3.2.2.1. Neutral gear and clutch;
    - 3.3.2.2.2. Starting the engine;
    - 3.3.2.2.3. Gear selection (automatic gearbox: position of the selector lever);
    - 3.3.2.2.4. Looking in the rear-view mirrors;
    - 3.3.2.2.5. Looking directly back;
    - 3.3.2.2.6. Direction indication;
    - 3.3.2.2.7. Releasing the parking brake.
  - 3.3.2.3. Exercise in starting and stopping the vehicle:
    - 3.3.2.3.1. Coordinated foot and hand operations before and during starting;
    - 3.3.2.3.2. Coordinated foot and hand operations before and after stopping from a low travelling speed.
  - 3.3.2.4. Steering exercises when driving at walking pace:
    - 3.3.2.4.1. Appreciation of the vehicle's over-all dimensions;
    - 3.3.2.4.2. Lane holding;
    - 3.3.2.4.3. Vehicle response to small steering-wheel movement.
  - 3.3.2.5. Acceleration and gear-shifting.
    - 3.3.2.5.1. Coordinated hand and foot operations during gear-shifting when the

vehicle is stationary, learner driver's eyes on the road;

3.3.2.5.2. Coordinated hand and foot operations during gear-shifting while driving.

3.3.2.6. Combination of starting, driving straight ahead, and stopping:

3.3.2.6.1. Starting, accelerating and gear-shifting;

3.3.2.6.2. Maintaining a constant speed;

3.3.2.6.3. Lane holding;

3.3.2.6.4. Stopping at a specific point and alighting from the car.

3.3.2.7. Cornering exercises.

3.3.2.7.1. Driving in a circle;

3.3.2.7.2. Turning - figure of eight;

3.3.2.7.3. Weaving through a staggered line of posts;

3.3.2.7.4. Right-angle turns.

3.3.3. Exercises on a level road

3.3.3.1. Acceleration and shifting up to the highest gear (automatic gearbox: selection of the driving range, "kick down"). Smooth acceleration by shifting gear at appropriate speed.

3.3.3.2. Shifting to a lower gear after deceleration:

3.3.3.2.1. Obtained by the braking effect of the engine;

3.3.3.2.2. Obtained by combining the braking effect of the engine and of the service brake;

3.3.3.2.3. Shifting to a lower gear by skipping one gear.

3.3.3.3. Stopping from higher speed:

3.3.3.3.1. By making use only of the braking effect of the engine in different gears;

3.3.3.3.2. With the combined use of the braking effect of the engine and of the service brake;

3.3.3.3.3. At a specific point with gear shifting;

3.3.3.3.4. In various gears without gear-shifting (emergency braking).

Second level

3.3.4. Exercises in very slow driving with clutch slipping on level road

3.3.4.1. Forward driving;

3.3.4.2. Reversing straight back;

3.3.4.3. Reversing straight back with stopping at a specific point.

- 3.3.5. Gear-shifting exercises (automatic gearbox: position of the selector lever).
  - 3.3.5.1. On uphill gradients;
  - 3.3.5.2. On downhill gradients.
- 3.3.6. Starting and stopping on an uphill gradient
  - 3.3.6.1. Starting with the aid of the parking brake;
  - 3.3.6.2. Keeping the vehicle stationary with the clutch;
  - 3.3.6.3. Preventing the vehicle from rolling back by engaging the clutch;
  - 3.3.6.4. Starting by the combined aid of the service brake and clutch.
- 3.3.7. Starting on a downhill gradient
  - 3.3.7.1. Starting by the combined aid of brakes and clutch.
  - 3.3.7.2. Emergency starting (by rolling downhill).
    - Third level
- 3.3.8. Basic manoeuvres
  - 3.3.8.1. Parking:
    - 3.3.8.1.1. Kerbside parking to the right and to the left, forward and backward;
    - 3.3.8.1.2. Parking in marked places (oblique and perpendicular to the direction of traffic);
    - 3.3.8.1.3. Kerbside parking into restricted space.
  - 3.3.8.2. Other manoeuvres:
    - 3.3.8.2.1. Turnabouts (U-turn, two point and three point turns);
    - 3.3.8.2.2. Reversing to the right round a corner;
    - 3.3.8.2.3. Climbing of low obstacle (kerb).
- 3.3.9. Exercises related to the negotiation of intersections
  - 3.3.9.1. Approaching intersections;
  - 3.3.9.2. Crossing intersections;
  - 3.3.9.3. Turning right at intersections;
  - 3.3.9.4. Turning left at intersections;
  - 3.3.9.5. Negotiating intersections with good visibility;
  - 3.3.9.6. Negotiating intersections with poor visibility;
  - 3.3.9.7. Negotiating roundabouts.
- 3.3.10. Merging into a traffic flow

Appreciation of distance and speed of other road users in the case of:

3.3.10.1. Light traffic conditions;

3.3.10.2. Heavy traffic conditions.

3.3.11. Driving in heavy traffic

Adaptation of speed, keeping sufficient safety distance between vehicles in relation to:

3.3.11.1. Traffic ahead;

3.3.11.2. Traffic at the rear;

3.3.11.3. Overtaking manoeuvre of another vehicle;

3.3.11.4. Lane discipline.

3.3.12. Anticipation of and reaction to traffic situations (especially by avoiding dangerous situations), such as:

3.3.12.1. Alignment and conditions of the road;

3.3.12.2. Intersections, T- and similar junctions, light signal installations;

3.3.12.3. Behaviour of other road users (children, pedestrians, two-wheeled vehicles, other drivers, heavy vehicles, parked vehicles, etc.).

3.3.12.3.1. Such knowledge in relation to heavy vehicles includes awareness that:

3.3.12.3.1.1. A heavy vehicle hides what is in front of it and consequently demands prudence by motorists following it until the situation is clear (e.g. before a road narrowing or other bottle-neck);

3.3.12.3.1.2. When turning, a heavy vehicle 'sweeps' the outside of its turning circle, consequently the motorist should leave it enough space to manoeuvre. (This situation is accentuated in the case of a load overhanging the end of a lorry);

3.3.12.3.1.3. Heavy vehicles need more space to enter and leave a parked position and the motorist consequently should not park nearer than 2 metres behind the rear of a parked lorry or coach;

3.3.12.3.1.4. It is desirable, for traffic fluidity, to allow a faster heavy vehicle to overtake a slower one and the motorist consequently should bide his time until this operation has been completed before overtaking;

3.3.12.3.1.5. It is desirable, for traffic fluidity, to allow a heavy vehicle to enter a motorway at a reasonable speed.

Fourth level

3.3.13. Changing lanes and lane selection

3.3.13.1. Changing lanes prior to and after passing an obstacle (e.g. parked car);

- 3.3.13.2. Changing lanes prior to and after overtaking;
- 3.3.13.3. Changing lanes for the purpose of lane selection;
- 3.3.13.4. Lane selection in the absence of marked lanes.
  
- 3.3.14. Behaviour at intersections regulated by traffic light signals
- 3.3.14.1. Approaching;
- 3.3.14.2. Turning right (paying attention to the traffic moving in the same direction);
- 3.3.14.3. Turning left (behaviour in respect of oncoming traffic).
- 3.3.15. Behaviour at intersections regulated by traffic signs or without signs or signals
- 3.3.15.1. Approaching;
- 3.3.15.2. Turning right;
- 3.3.15.3. Turning left.
- 3.3.16. Roundabouts
- 3.3.16.1. With traffic light signals;
- 3.3.16.2. With traffic signs;
- 3.3.16.3. Without traffic signs and signals;
- 3.3.16.4. With tramway crossing.
- 3.3.17. Overtaking under various conditions and at various speeds
- 3.3.17.1. On one-way roads;
- 3.3.17.2. On two-way roads, when the vehicle does not need to leave its half of the carriageway:
  - 3.3.17.2.1. When able to look through the vehicle to be overtaken;
  - 3.3.17.2.2. When unable to look through the vehicle to be overtaken;
- 3.3.17.3. On two-way roads, when the part of the carriage-way reserved for oncoming traffic must be used:
  - 3.3.17.3.1. When able to look through the vehicle to be overtaken;
  - 3.3.17.3.2. When unable to look through the vehicle to be overtaken.
- 3.3.18. Behaviour at level-crossings
- 3.3.18.1. Approaching;
- 3.3.18.2. Waiting;

- 3.3.18.3. Crossing.
- 3.3.19. Behaviour in case of breakdown of vehicle or accident
- 3.3.19.1. Use of the hazard warning signal;
- 3.3.19.2. Escape from the vehicle in emergency situations;
- 3.3.19.3. Use of the hazard warning triangle;
- 3.3.19.4. Emergency action for removal of the vehicle (e.g. from level crossing).
- Fifth (qualification) level
- 3.3.20. Driving outside built-up areas on ordinary roads with a minimum speed of 50 km/h
- 3.3.21. Driving on motorways or on roads for motor vehicles
- 3.3.21.1. Entering, use of the acceleration lane;
- 3.3.21.2. Maintaining the safety distance from other vehicles;
- 3.3.21.3. Lane changing;
- 3.3.21.4. Overtaking and re-positioning;
- 3.3.21.5. Driving into and out of lay-bys;
- 3.3.21.6. Leaving, use of deceleration lane.
- 3.3.22. Driving at night or in inclement weather conditions
- 3.3.22.1. Use of lights in general;
- 3.3.22.2. Use of passing lights;
- 3.3.22.3. Adaptation of speed to the range of vision and to the conditions of the road surface.
- 3.3.23. Driving in unfamiliar traffic areas
- 3.3.23.1. Destination to be indicated by the driving instructor;
- 3.3.23.2. Free choice of the learner driver, with announcement of destination in due time.
- 3.4. Drivers of motor vehicles of categories C and D

- Note:
- (i) The following recommendations presuppose that the learner heavy-vehicle driver is already a qualified driver of vehicles of category B and that the theoretical instruction he receives with regard to driving heavy vehicles will be put into practice in the course of the practical training.
- (ii) In order that the instruction be as appropriate as possible to the driver's subsequent occupation, it is desirable that it be performed on a vehicle as similar as possible to the kind of vehicle he will be required to drive after

qualification. In any case the characteristics of the vehicle used for training should conform at least to those set out in paragraph 12 of annex I to the 1975 Agreement on Minimum Requirements for the Issue and Validity of Driving Permits (APC). In countries which allow driving of articulated vehicles on the basis of driving permits of category C, it would be desirable that at least one or two lessons are given on an articulated vehicle.

- (iii) The following recommendation is restricted to the principles laid down in annex I of the APC, that is for road safety (including the protection of the environment and fuel-saving driving) and therefore does not cover particular requirements for professional (commercial) drivers.

#### First level

- 3.4.1. Instruction and practice with the engine switched off and running
- 3.4.1.1. Introduction to vehicle characteristics:
- 3.4.1.1.1. By walking around the vehicle;
- 3.4.1.1.2. In the driving seat of the driving cab.
- 3.4.1.2. Introduction to vehicle's operation:
- 3.4.1.2.1. Propulsion, suspension, braking circuit and power transmission;
- 3.4.1.2.2. Care and maintenance.
- 3.4.1.3. Introduction to the study of the operating instructions:
- 3.4.1.3.1. Explanations on the vehicle and in the driving cab.
- 3.4.1.4. Performance of checks before starting up:
- 3.4.1.4.1. Using check lists;
- 3.4.1.4.2. To check vehicle operating safety and road worthiness and to ensure that the load is secured (see Recommendation 2.11.).
- 3.4.2. Exercise off the road
- 3.4.2.1. Starting, moving off, stopping and moving off again;
- 3.4.2.2. Appreciation of vehicle's overall dimensions;
- 3.4.2.3. Appreciation of vehicle's weight and road behaviour.
- 3.4.2.4. Gear shifting:
- 3.4.2.4.1. Operation of the clutch;
- 3.4.2.4.2. Various gear-changing methods with and without synchromesh gearboxes;
- 3.4.2.4.3. Attention to the revolution counter and changing gear accordingly.

- 3.4.2.5. Attention to frequent use of the rear-view mirror and learning how to reverse using the mirrors.
- 3.4.2.6. Loads (category C only):  
  
Checking on the conformity of the load with the requirements of the basic principles of good practice code for loading and stowage methods (annex 3, paragraph 2).
- 3.4.2.7. Passengers and luggage (category D only)  
  
Taking necessary precautions concerning passengers embarking on the bus, checking the permissible number of passengers on board and the stowage of luggage.  
  
Taking also the necessary measures concerning passengers requiring special care, such as children, handicapped and elderly persons with a view to their comfort and safety.
- 3.4.2.8. Basic exercises on driving:
  - 3.4.2.8.1. Forward and in reverse;
  - 3.4.2.8.2. Forward and back, around curves to left and right;
  - 3.4.2.8.3. On to ramps and into stopping place;
  - 3.4.2.8.4. Slaloms and through archways and narrow passages;
  - 3.4.2.8.5. At varying distances and speeds;
  - 3.4.2.8.6. Further instruction in the correct handling of the vehicle.
  - 3.4.2.9. Performing technical work away from traffic.
  - 3.4.2.10. Wheel-changing.
  - 3.4.2.11. Fitting and removing chains for use on snow or heavy ground.
  - 3.4.2.12. Securing immobilized vehicles.

Second level

- 3.4.3. Driving instruction general (This instruction should be given first on level roads with light traffic and later on other roads).
- 3.4.3.1. Familiarization with the dynamics of driving and the force acting on the vehicle:
  - 3.4.3.1.1. Suspension system;
  - 3.4.3.1.2. Drive, braking and lateral forces;
  - 3.4.3.1.3. Attention to the centre of gravity, wheel loading and centrifugal forces;
  - 3.4.3.1.4. Attention to traction and static friction;
  - 3.4.3.1.5. Behaviour in case of skidding and wheel-locking.
- 3.4.3.2. Basic exercises:
  - 3.4.3.2.1. Speed regulation;
  - 3.4.3.2.2. Estimation of distances and particularly of safety distance.
- 3.4.3.3. Familiarization with the various methods of slowing down at various speeds, including emergency braking.
- 3.4.3.4. Lane behaviour:
  - 3.4.3.4.1. Making one's own intentions clear through driving methods;
  - 3.4.3.4.2. Changing lanes on single and multi-carriageway roads;
  - 3.4.3.4.3. Coordination of vehicle, lane and speed: on the open road and in narrow passages and entries;
  - 3.4.3.4.4. Higher-speed driving: up to the maximum permissible speed;
  - 3.4.3.4.5. Keeping to an exact track and to the speeds appropriate to the engine;
  - 3.4.3.4.6. Passing obstacles on the road, e.g. parked vehicles;
  - 3.4.3.4.7. Even and steady driving;
  - 3.4.3.4.8. Attention to the revolution counter, including when changing speed and gear.
- 3.4.3.5. Overtaking and being overtaken.
- 3.4.3.6. Keeping at a safe distance from the preceding vehicle.
- 3.4.3.7. Merging into the traffic flow upon leaving the slow vehicles lane.
- 3.4.3.8. Cautious driving across intersections and narrow sections with and without traffic lights, including roads in built-up areas.

- 3.4.4. Driving on motorways or on roads for motor vehicles
- 3.4.4.1. Entering, use of the acceleration lane.
- 3.4.4.2. Entering from the acceleration lane.
- 3.4.4.3. Making use of the deceleration lane on leaving.
- 3.4.4.4. Overtaking and being overtaken.
- 3.4.4.5. Maintaining the safety distance from other vehicles.
- 3.4.4.6. Merging into a traffic flow upon leaving the slow traffic lane.
- 3.4.5. Driving in special conditions and with varying loads
- 3.4.5.1. Empty and loaded at least up to 50 per cent of the loading capacity.
- 3.4.5.2. Familiarization with the higher speed range.
- 3.4.5.3. Correct adaptation of speeds to varying traffic conditions.
- 3.4.5.4. Rapid operation of the engine brake.
- 3.4.5.5. Operation of the transmission brake.
- 3.4.5.6. Driving up and down hill:
  - 3.4.5.6.1. Practising changing down at the appropriate moment and the use of braking systems;
  - 3.4.5.6.2. Correct coordination of gears and the use of braking systems;
  - 3.4.5.6.3. Always use the engine brake at rated engine speed.
- 3.4.5.7. Driving during the night on roads with and without public lighting.
- 3.4.5.8. Driving in unfavourable weather conditions whenever applicable.

Third level

- 3.4.6. Anticipatory driving, with special attention to traffic flow
- 3.4.6.1. Practise the systematic perfection of driving style aimed at driving as safely as possible:
  - 3.4.6.1.1. Correct adaptation to the general traffic flow and to other road users;
  - 3.4.6.1.2. Choice of the correct speed.
- 3.4.6.2. Mastery of traffic in built-up areas:
  - 3.4.6.2.1. Adaptation to the traffic flow.
- 3.4.6.3. Mastery of traffic outside built-up areas:
  - 3.4.6.3.1. Choice, to the extent possible, of a steady driving speed;

- 3.4.6.3.2. Prudent and sensitive use of driving and braking forces;
  - 3.4.6.3.3. Attention to the physical and mechanical aspects of driving.
  - 3.4.7. Driving with special attention to the environment and to the energy saving
  - 3.4.7.1. Familiarization with driving style which:
    - 3.4.7.1.1. Prevents unnecessary air pollution;
    - 3.4.7.1.2. Prevents unnecessary noise emitted by the vehicle;
    - 3.4.7.1.3. Saves energy.
  - 3.4.7.2. This driving style should aim at:
    - 3.4.7.2.1. Avoiding any unnecessary changes of speed;
    - 3.4.7.2.2. Reacting to changing traffic conditions by selecting the right speed in good time;
    - 3.4.7.2.3. Driving in the economic engine speed range and consequently changing gears at the right time.
    - 3.4.7.2.4. Changing gear after a quick look at the revolution counter;
    - 3.4.7.2.5. Making the best possible use of available pulling power.
  - 3.5. Additional minimum requirements for drivers of vehicles of category E.
- Note:
- (i) Characteristics of the vehicles used for training should conform at least to the requirements set out in the 1975 Agreement on Minimum Requirements for the Issue and Validity of Driving Permits (APC) annex 1, paragraph 12;
  - (ii) It would be desirable that lessons be given on an articulated vehicle as well as on another combination of vehicles.
- 3.5.1. Starting, moving off, stopping and moving off again.
  - 3.5.2. Appreciation of the overall dimensions of the vehicle.
  - 3.5.3. Appreciation of the weight and road behaviour of the vehicle.
  - 3.5.4. Coupling and uncoupling of trailers with special attention to the different coupling systems and to connecting of braking and electric systems.
  - 3.5.5. Driving forward and in reverse:
    - 3.5.5.1. Forward and back, around curves to left and right;
    - 3.5.5.2. On to ramps and into stopping places;
    - 3.5.5.3. Around slaloms and through archways and narrow passages;
    - 3.5.5.4. At varying distances and speeds;

- 3.5.5.5. Further instruction in the correct handling of the combination of vehicles.
- 3.5.6. Braking situations and braking systems including the trailer.

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Annex 7

**ADDITIONAL RECOMMENDATIONS FOR PROFESSIONAL DRIVERS  
OF VEHICLES OF CATEGORIES C, D AND E - TRAINING PROGRAMME**

(Recommendation 3.1.)

INTRODUCTION

1. Six areas in which safety-conscious driving is particularly important have been selected for additional driving instruction for professional drivers and these are:
  - (i) operational safety;
  - (ii) the basic aspects of driving mechanics;
  - (iii) the securing of loads;
  - (iv) instruction in road traffic safety, including:
    - anticipatory driving;
    - environmental aspects;
    - movement in traffic;
    - medical aspects.
  - (v) driving adapted to modern commercial vehicles;
  - (vi) regulations and contacts with the competent authorities.
2. Aims and contents within the above-mentioned areas of the additional instruction are indicated in the subsequent paragraphs which should serve as a basis for the definition of methods of additional tuition.

AIMS AND CONTENT OF ADDITIONAL TRAINING

Training area:

3. Operational safety

Aim	Content
3.1. Explain the importance of	Transport by road must be operational safely carried out safely and economically; consequently, vehicles should be used only when their operational and traffic safety has been confirmed before departure. Damage, faults or malfunctions in the vehicle can cause accidents or endanger other road users.

- |      |  |   |
|------|--|---|
| 3.2. | List of methods of checking operational safety.                                      | Performance of all stipulated care and maintenance work or inspections within the prescribed time-limits.<br>Compliance with all statutory safety inspections and examinations;<br>performance of daily checks before departure and inspections of the vehicle at the end of the journey and running routine checks during the journey by looking over the vehicle or road train. |
| 3.3. | Explain the importance of the vehicle operators manual to operational safety.        | Introduction to study and work with the instruction manual; consultation of the manual in care and maintenance work, breakdowns and repairs;<br>compliance with the specified periodic inspections.   |
| 3.4. | Explain procedures in the event of doubt concerning the vehicles operational safety. | In the event of damage, breakdown or danger to operational safety, the driver must without delay inform the person in charge in the firm in order to obtain an appropriate decision.  |
| 3.5. | Explain the slogan "safety first" as a basis for drivers conduct in road traffic.    | If in doubt whether to drive on or stop for repairs, the driver must act on the premise that safety takes priority in road transport.   |

Training area:

4. The basic aspects of driving mechanics

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Aim	Content
4.1. List the forces affecting the	Driving and braking forces, mass, inertial and lateral forces.

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- 4.2. Explain the importance of the centre of gravity to the vehicle's stability. Vehicle, load and overall centre of gravity; forces acting on the centre of gravity (centrifugal, braking, side-wind and lateral dynamic shifts in axle loading); over-turning point, turning circle and vehicle speed.
- 4.3. Explain the influence of the transmission of forces on safety. The relationship between the tyres and the road surface; tyre contact surface, co-efficient of adhesion, of sliding; wheel-locking. Aquaplaning; steering movements transmitted only by moving wheels.
- 4.4. Describe the connection between resistance to forward movement and propelling force. Resistance due to wheel rolling, air and gradient, tyre flexing; air resistance increases by the square of vehicle speed; radial tyres reduce resistance to wheel rolling.
- 4.5. Explain the effects of external forces due to lateral wind, and centrifugal forces. Load distribution and side-wind sensitivity; effect of centrifugal force on bends with inadequate adhesion; the centre of gravity too high means the vehicle may slew round due to lateral forces.
- 4.6. Relationship between vehicle speed and safety limits. Lateral movement as compared with trajectory, turning circle. Driving around bends: never brake, but decelerate before the bend; look out for dynamic movements of the load. At high speeds on bends, even gentle braking can cause the vehicle to swerve and skid.
- 4.7. Explain how to climb and descend gradients safely, emphasizing driving in mountainous and other particular topographic conditions. Observe and assess the lie of the road in good time; get into the right gear in good time, begin downhill gradient slowly; change down in good time and link engine braking to gear selection and rated revolutions to stabilize speed.
- 4.8. Describe how to decelerate and brake commercial vehicles safely. "Pre-braking" (by putting the brake shoes in light contact with the drums) to prepare for full braking, gently and with the appropriate pressure at

- all times. Apply the braking force. Adapt braking force to traffic conditions and the weather; avoid excessive braking when the vehicle is empty or part-loaded.
- 4.9. Demonstrate safe driving in unfavourable weather. Pay attention to the available adhesion in rain, snow and icy conditions, and if the road is soiled with mud, leaves, oil or other slippery substances, know how to control braking and driving forces correctly also taking into account the weight and the nature of the load carried; reduce and adapt speed in good time; if possible, keep the weight of the load on the driving axle(s) throughout the journey.
- 4.10. Explain the danger of jack-knifing and skidding with vehicle combinations. Distribution of the braking force between tractor and trailer. Check braking balance routinely; check the compatibility of the braking systems of the two vehicles; prevent wheel-locking, use the engine brake with caution on a slippery road surface - in such cases, use the service brake (acting on all wheels) carefully; correct the tendency to skid by braking in short bursts.

Training area:

5. Securing of loads 1/

Aim	Content
5.1. Explain the influence of load safety on vehicle operating safety.	The shipper is responsible for the safety of the load but the driver is responsible for making sure that the loading is safe for the operation of the vehicle (he need not do this himself, but merely to have it done under his supervision).
5.2. Explain the influence of forces on the loading of goods.	Forces acting on the vehicles also affect the safety of the goods carried; they must be suitably stowed and secured. Load distribution plans and securing points on the vehicle (possibility of fixing ropes or straps) facilitate correct and reliable placing of loads; attempts must always be made to lash the goods down firmly to prevent the load from shifting and thus prevent damage by rubbing. After the first part-discharge,

adequate safety measures for the remaining load must be taken before driving on, e.g. by stacking the goods and securing with dunnage or clamping nets.

- 5.3. Describe the effect of commercial vehicle driving on the safety of the load.

The vehicle driver can make a significant contribution towards the safety of the load by suitably adapting his speed especially on bends and carefully applying power and brakes in order to prevent the load from slipping or tipping.

Training area:

6. Instruction in road traffic safety

Aim	Content
6.1. Anticipatory driving	
6.1.1. List the various features of driving modern commercial vehicles.	Knowledge and understanding of driving dynamics and tactics, mechanics of driving and of engine characteristics in order to achieve a driving skill, taking into account engine speed (and hence respecting vehicle mechanics) and the vehicles technical layout, together with "anticipatory" observation saving energy, low in noise, respecting the environment and sparing the equipment.
6.1.2. Explain the importance of "seeing and observing" correctly for the safety of road transport.	Registering of information from the surrounding traffic and its processing in the brain; developing perception adapted to traffic and suitable observation and orientation methods.
6.1.3. Describe proven observation techniques.	Seeing in flashes; close-to sight; uninterrupted vision; rear vision by interpretation of the image in the rear mirror; selective vision of common place events, selective vision in traffic, rules for observation on open stretches, on bends, in narrow passages, on turning off, crossing other traffic, joining and leaving traffic flows; passing oncoming vehicles with their lights on in the dark; parking in a confined space (indirect vision).
6.1.4. Explain the role of "anticipatory vision" in driving.	Looking well ahead can give warning of traffic developments in good time so that the driver can prepare for them at leisure, generally by slowing down or accelerating, thus ensuring a

smooth but rapid driving style;  
possible dangers can be recognized  
before they develop into real  
dangers; "traffic sense" is developed  
and road safety is further improved.

6.2. Environmental aspects

6.2.1. Describe the significance  
of a knowledge of the  
environment for  
anticipatory driving.

Conscious vision and observation  
contribute to the development of  
traffic sense; the environment in  
which the driver moves with his  
vehicle is important. A knowledge of  
the environment includes three  
aspects: knowledge of fellow road-  
users, knowledge of road conditions  
and knowledge of time. Typical  
drivers' conduct is known in all  
fields and must be recognized and  
interpreted in time so as to be able  
to adapt driving technique as  
necessary.

6.2.2. Explain the relationship  
between road-users, including  
mutual respect and  
responsibility.

The driver can obtain a great deal of  
information from the attention and  
intentions of fellow road-users  
(pedestrians, drivers of two-wheeled  
vehicles, cars or commercial  
vehicles) enabling him to adapt to  
their probable behaviour for  
prevention purposes - here, he should  
always make allowances for road-users  
needing help.

6.2.3. Explain the importance of  
road conditions.

The state of the road, traffic signs  
and installations are especially  
important for drivers of heavy  
vehicles. They must therefore have  
sufficient knowledge of the road to  
be able to adapt rapidly and  
judiciously to the variety of traffic  
situations. They must always  
establish the relationship between  
the state of the road, their vehicle  
and their load as a function of  
speed.

6.2.4. Describe varying weather  
conditions over the time  
of the day and season  
and their impact on  
traffic safety.

The time of day and season of the  
year affect traffic conditions; the  
driver must therefore be informed  
about them in order to take them into  
account in good time in his driving  
style. Damp, ice and snow cause  
difficulties by reducing the adhesion  
of tyres on the road surface. Rainy  
conditions increase the accident risk  
considerably. Limited visibility in  
autumn and winter is a further major  
complication for the driver.

6.2.5. Describe the importance  
of vehicle maintenance.

Maintenance of the vehicle in  
particular to guarantee optimal life  
and satisfy the requirement to reduce

noise and pollutant emissions. Respect of the rules when driving in order to avoid as much as possible manoeuvres harmful to the environment.

### 6.3. Movement in traffic

6.3.1. Explain the importance of keeping in lane and of the maintenance of speed.

Safe driving means selecting a lane and sticking to it; clear-cut driving is one of the most effective ways of giving other road users good notice of intentions. Keeping and changing trajectory must be mastered; speed maintenance must be practised.

6.3.2. List and explain road manoeuvres involving other road users.

Passing, meeting, crossing, threading in and overtaking. Maintain the minimum safety distance, take account of the danger of tailgating, determine braking distances correctly from vehicle mass and speed; use the vehicles' inertial energy skillfully; when travelling a line, especially, always react in good time and adjust speed to that of the traffic; take account of space, speed differences and acceleration in overtaking and refrain from doing so if in doubt. When effecting these driving manoeuvres, adapt speed in good time.

### 6.4. Medical aspects

6.4.1. Explain the medical aspects of driving aptitude including the impact of stress.

Nourishment, fatigue, illness, medicaments, alcohol and narcotics are driving hazards. Medical advice on the impact of stress.

6.4.2. Describe fatigue and how to prevent and combat it.

Combatting fatigue, alternation of driving and breaks in accordance with the existing regulations, length and use of breaks; rest and leisure periods; food in line with professional requirements; work and the use of calories; rhythm of work and meals, consequences of unwise eating; normal fatigue, factors promoting fatigue; symptoms and effects of fatigue, drop in efficiency in night driving.

Training area:

7. Driving adapted to modern commercial vehicles

Aim	Contents
7.1. Explain the importance of the technical design of a commercial vehicle for its driving.	Commercial vehicles are designed to give full efficiency only when driven in a manner respecting their "mechanics", i.e. the driving must exactly match the technical layout of the vehicle; the driver's main source of information is the revolution counter with the "economic speed range".
7.2. Explain transport performance.	Driving adapted to modern commercial vehicles results in "good transport performance"; the highest possible average speed coupled with the lowest possible vehicle operating costs.
7.3. Explain the significance of average speed.	Good average speed requires a gentle, smooth and regular driving style avoiding any unnecessary change of speed. This can be obtained through "anticipatory driving" in order to have enough time to adapt to developing traffic situations in good time by slowing down or accelerating. This method of driving is safe and economical, because the driver is always in full control of the vehicle.
7.4. Explain the role of inertial energy in commercial vehicle driving.	The use of the vehicle's own inertial energy is important to smooth driving. It is then possible to drive down long slopes at a good speed but regularly and without excessive use of fuel. Inertia can also be used on flat roads: once cruising speed has been reached, slack off on the accelerator and only press down again when the speed starts to drop too much.
7.5. Explain the proper use of the engine and service brake.	The braking effect of the engine, which produces no wear on the brakes themselves, is suitable for deceleration during anticipatory driving and especially to stabilise vehicle speed on long down-hill slopes. The service brakes should be applied only in cases of emergency; in all cases, the engine and service brakes must be used with care.
7.6. Explain the importance and necessity of using correct driving techniques in the	Explain the scope for reducing the effect of friction (periodic checks of tyre pressures and tread wear),

interests of fuel economy, reducing wear on vehicle components and parts and pollution of the environment.

inertial energy (correct distribution of the load and avoidance of overloading), the effect of the correct choice of gear, engine revolutions and accelerator position, the use of the coasting technique and the braking system.

#### Training area:

#### 8. Regulations and contacts with the competent authorities

Aim	Content
8.1. To have sufficient knowledge of general regulations applying to transport and the relevant legal provisions for the direct and indirect needs of traffic and transport safety.	Introduction and survey of the provisions applying to road transport drivers, such as Road traffic rules The regulations on the transport of goods and of passengers Customs regulations The consignment note Labour regulations These requirements should be taught to the driver in such a manner that he can carry out transport operations without problems in relation to the regulations.
8.2. To be able to find his way round traffic regulations and possibly other provisions when engaged in international transport operation.	The basic elements should be taught to the driver to enable him to know when which regulation applies; how he can obtain access to the provisions and how he should make use of them subsequently.
8.3. To master relations with the competent authorities.	Psychological advice related to avoiding or attenuating situations with the authorities likely to result in stress.

#### ROLE OF SUPERVISION IN DRIVING

9. Driving can be supervised, corrected and promoted by the checking and assessment of tachograph charts, and by the driver being accompanied at regular intervals by trainers or instructors not only for the supervision of the correct driving technique, but also to check behaviour in traffic, i.e. the choice of suitable speeds and the observation, correctly and in good time, of traffic rules and regulations.

#### Notes

1/ Recommendation 2.8. of this Consolidated Resolution should be included in the tuition.



Annex 8

**ADDITIONAL RECOMMENDATIONS ON THE INSTRUCTION OF CHILDREN  
IN SAFE ROAD BEHAVIOUR**

(Recommendation 3.3.)

PROFESSIONAL QUALIFICATIONS AND TRAINING OF INSTRUCTORS

1. Teachers and other experts (e.g. police officers) giving road safety instruction in schools shall have preferably a pedagogical training equivalent to that required for other subjects on the school curriculum, backed by practical experience.
2. Governments and other bodies, including non-governmental organizations, involved in road safety work (e.g. local authorities) shall try to take steps to ensure an adequate supply of teachers with suitable up-to-date training in traffic education.
3. Manuals, workbooks and other teaching aids shall be culturally sensitive and be available for use by lecturers and children. They shall be reviewed from time to time and take account of research into their effectiveness, and changes in traffic conditions.

TUITION

4. Up-to-date pedagogical methods, incorporating practical training, technical aids, such as table top models, audio-visual resources, books, videos, posters and computer simulations etc., shall be available for road safety instruction. From a teaching point of view, the active participation of pupils is vital if training is to succeed.
5. The system of road safety instruction for children shall be on a step by step basis, depending on their age, their capabilities, the local environment and their means of moving about. In this instruction, the importance of the role of the environment, which has a great influence on the behaviour of children, shall not be neglected.
6. Instruction shall begin with pre-school aged children. It is necessary to encourage parents to take personal responsibility for instructing their children, starting before they start schools and continuing throughout their development, ensuring that they are capable of independent travel before they allow them to travel unaccompanied. Parents should be given the knowledge necessary for them to participate in their children's road safety development.
7. The child, on attaining school age and then adolescence, shall successively be familiarized, as appropriate, with the problems related to the use of a bicycle, moped and motorcycle, and those related to the driving of a car. Children shall also be familiarized with the safe use of means of public transport. Towards this end the responsible authorities should make every effort to provide regular and safe transportation of pupils to school and back home.
8. As this systematic education culminates in driving instruction (see recommendation 3.1.), the adequate knowledge built up at various school levels shall lead to a high quality of driving instruction. To this end, recognized driving instructors, the traffic police or other road safety specialists may be usefully asked to assist teachers in organizing courses on road safety and training in schools.

9. In order to illustrate theoretical instructions in practice, it is recommended that pupils should be made to carry out exercises both out of traffic and in real traffic preferably with low and successively higher traffic volumes. Theoretical training should be accompanied as far as possible by suitable practical instruction given in close collaboration with traffic police or other road safety specialists.

#### PROGRAMME

10. Children from pre-school age through to adolescence need to have a minimum instruction in how to behave safely in traffic. This involves developing pedestrian, cycling and driving skills as well as knowledge, understanding and positive attitudes to road safety. Instruction needs to be developmental, starting off with simple traffic situations and developing into an understanding of more complex road safety situations. In the following guidelines for a minimum programme of road safety instruction it is assumed that earlier training will be built upon and reinforced at every age.

Pre-school children (aged up to 5)

11. Instruction to children in this age group shall introduce them gradually to the road environment and traffic as both pedestrians and passengers. Children of this age should always be accompanied by an adult when out in traffic.

11.1. Children should gradually be guided to develop the knowledge and understanding of parts of the road e.g. pavement, kerb, crossings and what traffic is, i.e. movement of cars, lorries and other vehicles.

11.2. Children should be taught how to accompany adults safely, i.e. stay close to adults, hold hands, to use pedestrian facilities correctly, etc.

11.3. Children should be continuously exposed to the need to fit and use child restraint devices including safety belts in vehicles where they are available and other safety equipment, as appropriate, e.g. cycle helmets, fluorescent jackets. The role of parents in this duty is vital.

11.4. Children may begin to learn the basic mechanical skills of cycling but parents should supervise this training away from traffic.

11.5. Children should understand that they should not play close to traffic.

## Small children (aged 5-10)

12. Again instruction of children needs to be progressive, gradually building up skills and knowledge of traffic and how to behave safely in traffic. Children should first be taught how to move about in traffic as pedestrians and passengers. Children of this age should, if possible, be mostly accompanied by an adult when out in crowded traffic. Training needs to be developed according to the children's level of development and the risks they face. Basic cycling skills should first be taught off road and once mastered supervised training on roads with low traffic volumes can commence. Children should be introduced to more complex and difficult traffic situations progressively. The following are the minimum that should be taught to children in this age group:

12.1. Children should know the main traffic rules and understand the meaning of traffic signs and signals that affect their safety.

12.2. Children should be able to identify the road environment as a place that presents risks - they should understand the sources of those risks, i.e. moving vehicles.

12.3. Children should understand the various parts of the road environment and how to use them, i.e. what a pavement is and how to use it, how to use the side of the road if no pavement exists.

12.4. Children should understand the importance of being seen and develop positive attitudes towards road safety equipment such as fluorescent jackets/strips and cycle helmets.

12.5. Children should develop their ability to evaluate traffic and make judgements about when it is safe to cross the road.

12.6. Child cyclists should know basic cycle maintenance to ensure bicycles are safe to ride. Basic cycling skills should be mastered before children are allowed to ride in traffic. An appropriate cycle training should be undertaken before children cycle in traffic. Parents should ensure that children cycle in traffic conditions appropriate to their abilities.

## Older children (aged 10-15)

13. Children of this age group tend to travel more independently and many use bicycles, and in some countries are also allowed to use mopeds as legal means of transport. School children must therefore be motivated to become disciplined road users and to understand the various risks that they run themselves and create for others. Children in this age group will be looking forward to becoming riders and drivers. In addition, they are developing attitudes and are sensitive to peer pressure and should therefore be imbued with positive attitudes towards road safety and their responsibilities as pedestrians, riders and drivers. Instruction to these children should build on earlier education and cover the following areas:

13.1. Children should have both knowledge and understanding of different traffic environments and road users as well as the need for cooperation among all road user groups.

13.2. Children must know and understand traffic rules, signs and signals and their use in practice.

13.3. Children should have knowledge and understanding of how vehicles work and an appreciation of the importance of maintenance, e.g. brakes, lights,

seat belts, etc.

13.4. Children should know the circumstances under which behaviour of road users may be a danger to them and understand the consequences of that behaviour, e.g. speeding, drunk driving, driving too close to vehicles, not looking, etc. They should also be given strategies for avoiding risk taking behaviour, often encouraged in peer group situations. Principles of defensive driving on bicycles and mopeds should be incorporated in the curriculum.

Young people (aged 15 and over)

14. The highest accident rate is found in this age group. It is therefore increasingly necessary to arouse a sense of responsibility in this age group and thus prepare them to become disciplined road users such as car drivers and motorcyclists. Building on earlier development of road safety skills, knowledge and attitudes, instruction to this group should cover the following:

14.1. Young people should know and understand their personal and legal responsibilities to themselves and other road users.

14.2. Young people should have an opportunity to develop technical driving skills while giving due consideration to the negative effects of risk taking. Defensive driving should be the underlying principle of instruction.

14.3. It may be necessary to further encourage positive attitudes to safe behaviour and the use of safety equipment amongst this age group and how to develop skills against negative peer pressure.

14.4. Young people in this group are often called upon to accompany younger children. Young people should be made aware of their moral (if not legal) obligation to assist smaller children and to protect them against hazards on the road. Where this is necessary, adults should ensure that young people are capable of behaving safely on the particular route, being aware of any risks, and also that they are aware of the behaviour required by themselves and their companions to be safe road users.

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Annex 9

**MEASURES INTENDED TO FACILITATE THE MOVEMENT OF  
HANDICAPPED PERSONS IN TRAFFIC**

International symbol

blue ö



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