APPENDIX F
THE GERMAN ROAD TRAFFIC LICENSING ORDINANCE
(*STRASSENVERKEHRSZULASSUNGSORDNUNG* (StVZO))

Road Traffic Licensing Ordinance of 26 April 2012 (Federal Law Gazette (*Bundesgesetzblatt*) I, page 679), with subsequent amendments through 19 October 2012.

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CHAPTER B
VEHICLES

PART I
REGISTRATION OF VEHICLES - GENERAL RULES

SECTION 16. BASIC RULE FOR REGISTRATION

(1) All vehicles that meet the requirements established by this Ordinance and the Road Traffic Ordinance (*Straßenverkehrsordnung*) are allowed to participate in traffic on public roads unless a permit procedure is prescribed for the registration of individual vehicle types.

(2) Wheelchairs and hand-propelled wheelchairs, toboggans, baby carriages, scooters, children's bicycles, and similar non-motorized means of transportation are not considered vehicles as defined in this Ordinance.

SECTION 17. LIMITATION AND WITHDRAWAL OF REGISTRATION

(1) When it is found that a vehicle that is not subject to the application of the Vehicle Licensing Ordinance (*Fahrzeug-Zulassungsverordnung*) does not meet the requirements, the administrative authority may give the owner or holder an adequate deadline for the correction of the deficiencies and, if necessary, prohibit or restrict the operation of the vehicle in public traffic; the person concerned shall observe the prohibition or limitation.

(2) (Rescinded)

(3) If there is reason to assume that the vehicle does not comply with the provisions of this Ordinance, the administrative authority may, for the preparation of a decision pursuant to paragraph (1) and depending on the circumstances, order that—

1. An expert opinion be obtained as to whether the vehicle meets the requirements of this Ordinance or

2. The vehicle be turned in for inspection,

and if necessary, give several of such orders.

PART II
OPERATING PERMIT AND TYPE APPROVAL

SECTION 18. (RESCINDED)

SECTION 19. ISSUANCE AND VALIDITY OF OPERATING PERMIT

(1) The operating permit shall be issued if the vehicle complies with the provisions of this Ordinance, as well as with the instructions for its implementation issued by the Federal Ministry of Transportation, Construction, and Urban Development (*Bundesministeriums für Verkehr, Bau und Stadtentwicklung*) and with the provisions of Council Regulation (EEC) No 3821/85 of 20 Dec 1985 on recording equipment in road transport (OJ L 370, 31.12.1985, p. 8) last amended by Regulation (EU) No. 1266/2009 (OJ L 339, 22.12.2009, p. 3). The operating permit shall also be issued if, instead of the provisions of this Ordinance, the vehicle complies with the individual directives (as amended) included in—

1. Annex IV of Directive 2007/46/EC of the European Parliament and the Council of 5 September 2007 establishing a framework for the approval of motor vehicles and their trailers and systems, components and separate technical units intended for such vehicles (Framework Directive) (OJ L 263, 9.10.2007, p. 1), last amended by Regulation (EU) No 371/2010 (OJ L 110, 1.5.2010, p. 1), or

2. Annex II chapter B of Directive 2003/37/EC of the European Parliament and of the Council of 26 May 2003 on type-approval of agricultural or forestry tractors, their trailers and interchangeable towed machinery together with their systems, components and separate technical units and repealing Directive 74/150/EEC (OJ L 171, 9.7.2003, p. 1), last amended by Directive 2010/62/EU (OJ L 238, 9.9.2010, p. 7), or

3. Annex I of Directive 2002/24/EC of the European Parliament and of the Council of 18 March 2002 relating to the type-approval for two- or three-wheel motor vehicles and repealing Council Directive 92/61/EEC (OJ L 124, 9.5.2002, p. 1), last amended by Regulation (EC) No 1137/2998 (OJ L 311, 21.11.2008, p. 1).

The pertinent list of individual directives stated in annex IV of Directive 2007/46/EG, in annex II of Directive 2003/37/EC, and in annex I of Directive 2002/24/EC will be published and updated by the Federal Ministry of Transportation, Construction, and Urban Development in the Federal Traffic Gazette (*Vekehrsblatt*) by statement of the short title and the first reference from the Official Journal of the European Communities. The directives stated in sentence 2 above shall be implemented from the date they take effect and are published pursuant to sentence 3. If an individual directive stipulates its binding application, only this individual directive shall apply. If a vehicle belongs to an approved type or if a separate approval pursuant to section 13 of the EC Regulation on the Approval of Vehicles was issued, the issuance of a new operating permit is only authorized if the operating permit expires pursuant to paragraph (2), sentence 2.

(2) If not specifically withdrawn, the operating permit for a vehicle remains valid until its final putting out of operation. It expires if alterations are made by which—

1. The vehicle type approved in the operating permit is changed,

2. An endangerment of individuals participating in road traffic can be caused,

3. The exhaust fumes or noise level values are modified.

It shall also expire for vehicles of the Federal Armed Forces, to which section 20, paragraph (3b) or section 21, sentence 5 was applied, as soon as the vehicles are no longer registered for the Federal Armed Forces. Section 21 shall apply accordingly to the issuance of a new operating permit. If there is reason to assume that the operating permit has expired, the administrative authority may, in preparation of a decision, order that—

1. An expert opinion be obtained prepared by an officially recognized expert, by a tester for motor vehicle traffic, or a test engineer in order to determine if the vehicle is in compliance with this Ordinance,

2. The vehicle be presented,

and if necessary issue several of such orders; an inspection badge pursuant to annex IX may also not be issued.

(2a) The operating permit for vehicles which, due to their design, are intended for use by the military, the police,or for firefighting purposes and disaster control only remains in effect as long as these vehicles are registered for or used by the Federal Armed Forces, Federal Police, police, fire department, or disaster-control services. For vehicles designated in sentence 1, an operating permit pursuant to section 21 may only be issued to the Federal Armed Forces, the Federal Police, the police, the fire department, or the disaster control services; this applies also if the existing outfit and equipment used for military or police purposes or for fire fighting and disaster control was removed, changed, or made inoperable. Exceptions from sentence 2 may be granted for special operational purposes in accordance with section 70.

(3) In deviation from paragraph (2), sentence 2, the operating permit for a vehicle does not expire if, in case of alterations made by installation or attachment of parts—

1. For these parts—

a) An operating permit pursuant to section 22 or a type approval pursuant to section 22a was issued, or

b) Subsequent installation or attachment to the vehicle was approved within the scope of an operating permit or a supplement thereto issued for the vehicle pursuant to section 20 or 21

and the validity of the operating permit, type approval, or approval was not subject to inspection of the installation or attachment of the parts, or—

2. For these parts—

a) An EEC operating permit, EEC type approval, or EC type approval in accordance with European Community Law, or

b) A permit in accordance with regulations as amended pursuant to the Agreement of 20 March 1958 Concerning the Acceptance of Uniform Conditions on the Approval of Equipment and Parts of Motor Vehicles and Concerning the Mutual Recognition of the Approval (Federal Law Gazette 1965 II, p. 857 and 858), to the extent they are applied by the Federal Republic of Germany,

was issued and possible limitations or installation instructions were complied with, or

3. The validity of the operating permit, type approval, or approval of these parts pursuant to number 1, letter a or b, is subject to an inspection of the installation or attachment of these parts and such inspection is performed without delay and was confirmed in accordance with section 22, paragraph (1), sentence 5, also in connection with section 22a, paragraph (1a),

4. For these parts—

a) Proof of identity was provided with a part for which a technical-service expertise is available pursuant to annex XIX on the compliance with regulations of a vehicle, if these parts are installed or fixed according to their purpose (expertise on parts),

b) The intended use indicated in the expertise is complied with, and

c) The inspection of the installation or attachment to the vehicle was made immediately by an officially recognized expert or examiner for motor vehicle traffic or by an expert on motor vehicles or an official pursuant to number 4 of annex VIII of this Ordinance, and the proper installation or attachment in accordance with section 22, paragraph (1), sentence 5, was confirmed; section 22, paragraph (1), sentence 2, and paragraph (2), sentence 3, apply accordingly.

The operating permit for the vehicle expires if compliance with the limitations or installation instructions specified in the operating permit, type approval, or approval is not ensured for the parts under number 1 or 2.

(4) The operator of the vehicle shall—

1. In the cases of paragraph (3), number 1, carry along the printed copy or photocopy of the respective operating permit, type approval, approval within the scope of the operating permit a supplement thereto, or an extract of this permit or approval that contains the substantial information on the use, and—

2. In the cases of paragraph (3), numbers 3 and 4, carry along a certificate, according to a sample published by the Federal Ministry of Transportation, Construction, and Urban Development in the Traffic Gazette, on the permit, approval, or expertise on parts confirming the proper installation or attachment to the vehicle as well as the limitations or conditions that must be observed, and present them to a competent person upon request. Sentence 1 does not apply if the licensing certificate part I (*Zulassungsbescheinigung*), the list of trailers pursuant to section 11, paragraph (1), sentence 2, of the Vehicle Licensing Ordinance, or a certificate to be carried along or safekept pursuant to section 4, paragraph (5) of the Vehicle Licensing Ordinance contains a respective entry including the limitations or conditions to be observed; instead of the limitations or conditions to be observed a note may be contained that those are listed in a permit, approval or certificate to be carried along. The duty to inform about alterations in accordance with section 13 of the Vehicle Licensing Ordinance shall remain unaffected.

(5) If the operating permit has expired pursuant to paragraph (2), sentence 2, or paragraph (3), sentence 2, the vehicle may not be put into operation on public roads nor may its operation be ordered or permitted by the vehicle holder. Exceptions from sentence 1 are only permissible in accordance with sentences 1 through 5. If the operating permit has expired pursuant to paragraph (2), sentence 2, only such trips directly in connection with obtaining a new operating permit may be undertaken. The previous license plate numbers or red license plates or short-term license plates shall be attached. Sentences 3 and 4 also apply to trips carried out by the officially recognized expert on road traffic in preparation of the expertise.

(6) If vehicle manufacturers who are owners of an operating permit for types make alterations of any vehicle parts within the meaning of paragraph (2), the operating permit will remain effective as long as the vehicles are exclusively used for test purposes; in this respect a notification of the registration authority is not necessary. Sentence 1 applies only if the registration agency has certified in the vehicle certificate that the vehicle has been reported to them as a test vehicle.

(7) Paragraphs (2) through (6) apply accordingly to the EC type approval.

SECTION 20. GENERAL OPERATING PERMIT FOR TYPES

(1) An operating permit may be issued to the manufacturer for serially-produced vehicles after they have been tested at his expense (general operating permit) if he guarantees that the authorities granted thereby will be reliably exercised. If several producers have combined to manufacture one type of vehicle, the general operating permit may be issued to them as a group. For vehicles produced outside the territorial scope of this Ordinance, the general operating permit may be granted to—

1. The manufacturer or his agent if the vehicles have been produced in a state in which the Treaty Concerning the Establishment of the European Economic Community or the Agreement on the European Economic Area is in effect.

2. The agent of the manufacturer if the vehicles have been produced in a state in which the Treaty Concerning the Establishment of the European Economic Community or the Agreement on the European Economic Area is not valid, but have been imported into the territorial scope of this Ordinance from a state in which the Treaty Concerning the Establishment of the European Economic Community or the Agreement on the European Economic Area is in effect.

3. In other cases, to the dealer who proves that he is the sole authorized salesman of the vehicles within the territorial scope of this Ordinance.

In the cases of sentence 3, number 2, the agent of the manufacturer must be a resident of a state in which the Treaty Concerning the Establishment of the European Economic Community or the Agreement on the European Economic Area is valid. In the cases of sentence 3, number 3, the dealer must be a resident within the territorial scope of this Ordinance.

(2) The Federal Office for Motor Traffic (*Kraftfahrt-Bundesamt*) will decide on the request for issuance of the general operating permit. The Federal Office for Motor Traffic may entrust an officially recognized expert for motor vehicle traffic or another agency with the expert opinion. It will determine which documents have to be submitted with the request.

(2a) If the request for issuance of a general operating permit also includes the approval for optional equipment, the Federal Office for Motor Traffic can, upon request, include in the general operating permit the parts that may be subsequently attached or installed (sec 19, para (3), no 1, letter b, and no. 3); section 22, paragraph (3), shall be applied.

(3) The owner of a general operating permit for vehicles has to complete a motor vehicle registration certificate for each vehicle corresponding to the approved type and subject to registration. The forms for the registration certificates are issued by the Federal Office for Motor Traffic. Information on the vehicle will be entered in the certificate by the owner of the general operating permit for that vehicle. If several manufacturers are involved, each producer will enter the information pertaining to the parts he produces, unless one producer assumes the responsibility to fill out the certificate; if the issuance of the operating permit was dependent on the approval of an exception, such exception and the approving authority must be designated in the certificate. The certificate shall be signed by the owner of the general operating permit stating the name of the company and the date; a reproduction of the handwritten signature by print or stamp is authorized.

(3a) The owner of a general operating permit for vehicles is obliged to fill in a form confirming the data pursuant to sample 2d for each vehicle corresponding to the type that is subject to registration. On the data form, the owner of the general operating permit shall enter information about the quality of the vehicle. If several manufacturers are involved, those shall provide information about the parts manufactured by them unless one person fills in the form confirming the data for all. Stating the date, the person responsible for filling in the form shall confirm the correctness of the data on the quality of the vehicle and its congruity with the approved type. If the vehicle belongs to one of the EC vehicle categories designated in annex XXIX, the name of the vehicle category may also be entered. The confirmation of data shall be carried along with the vehicle for its registration. If the owner of a general operating permit also completed a vehicle registration certificate pursuant to paragraph (3), sentence 1, the certificate shall be attached to the data confirmation form. Confirmation of data pursuant to sentence 1 is not necessary if both of the following apply:

1. The Federal Office for Motor Traffic has provided type data for the vehicle type.

2. The owner of a general operating permit has confirmed by entry of the code numbers for the type, variants, and versions, provided by the Federal Office for Motor Traffic for retrieval of type data in the vehicle registration certificate, that the vehicle designated in the vehicle registration certificate is identical with the type data reflected by the code number.

(3b) In deviation from paragraph (3a), sentence 1, the data confirmation form for vehicles that will be registered for the Federal Armed Forces needs to be issued only for one vehicle series if the owner of the general operating permit provides the vehicle identification number of each individual vehicle of this vehicle series to the Central Military Motor Traffic Agency (*Militärkraftfahrtstelle*).

(4) Deviations from the technical data that the Federal Office for Motor Traffic has determined with the issuance of the general operating permit for the approved type by written notification are granted to the holder of the general operating permit only if the permit is supplemented by a corresponding additional entry or if, on inquiry, the Federal Office for Motor Traffic stated that an additional approval for the intended change is not required.

(5) The general operating permit ends upon expiration of a fixed period, in case of revocation by the Federal Office for Motor Traffic, and if the approved type does no longer comply with the legal provisions. The revocation may be pronounced if the owner of the general operating permit violates the duties in connection therewith or proves to be unreliabl, or if it is found that the approved type of vehicle does not meet the requirements of traffic safety.

(6) The Federal Office for Motor Traffic may at any time check or have checked the fulfillment of the duties in connection with the general operating permit on the part of the producers or their agents, or dealers. In the cases of paragraph (1), sentence 3, numbers 1 and 2, the Federal Office for Motor Traffic may make the issuance of the general operating permit dependent on the fact that the producer or his agent commit themselves to facilitate the measures required for the check pursuant to sentence 1. The costs for the checks shall be borne by the holder of the general operating permit if proof is furnished for a violation of duties on his part in connection with the permit.

SECTION 21. OPERATING PERMIT FOR SINGLE VEHICLES

(1) If a vehicle does not belong to an approved type, the person authorized to dispose of it shall request issuance of the operating permit from the authority competent according to the legal provisions of the *Länder*. Together with the request for issuance of an operating permit, the expertise of an officially recognized expert for motor vehicle traffic shall be submitted to the authority competent according to legal provisions of the *Länder*. The expertise must contain a technical description of the vehicle to the extent necessary for issuance of a vehicle certificate part I and part II. The expertise shall be supplemented with an enclosure listing the technical regulations based on which an operating permit can be issued for the vehicle. In the cases of section 19, paragraph (2), the enclosure shall also depict the alterations that led to the expiration of the previous operating permit. In the expertise the officially authorized expert for motor vehicle traffic certifies that she or he has properly described the vehicle in the expert opinion and that the vehicle is in compliance with the regulations pursuant to section 19, paragraph (1); the approving authority shall transfer the data from the expertise to part I of the vehicle certificate and, to the extent necessary, to part II of the vehicle certificate.

(1a) If a vehicle belongs to an approved type or if a separate operating permit according to this Ordinance or a separate approval pursuant to section 13 of the EC Regulation on the Approval of Vehicles was issued, an expert opinion is only authorized if the operating permit pursuant to section 19, paragraph (2), has expired.

(2) For the results summarized in the expertise, test protocols must be prepared which show that the necessary tests were made and the required results were achieved. Upon request, test protocols shall be submitted to the approving authority or the responsible supervisory authority. The expertises and test protocols must be retained for ten years.

(3) The chief of the technical inspection agency must ensure a constant quality of all activities carried out by the authorized group of persons. Once a year and in addition upon specific request, he must submit a quality assurance report to the supervisory authority. The report must provide transparent information about the performed quality tests and the initiated quality ensurance measures if those were necessary due to a violation. The chief of the technical inspection agency will ensure that faulty opinions based on which a vehicle was or will be introduced into traffic which poses a considerable risk for traffic safety, public health or the environment, will be reported immediately after discovery to the responsible approving authority and the responsible supervisory authority.

(4) In case of vehicles subject to registration, part II of the vehicle registration certificate shall be attached to the application. If such a certificate has not been issued, its issuance must be applied for pursuant to section 12 of the vehicle registration ordinance.

(5) If for the issuance of a permit for vehicles an additional exceptional permit pursuant to section 70 is necessary, the agency preparing the opinion shall state this in the expertise and provide sound reasons.

(6) In deviation from paragraph (4), sentence 1, presentation of part II of a vehicle registration certificate is not required for vehicles registered for the Federal Armed Forces if an officially recognized expert for motor vehicle traffic has issued a confirmation of data form in accordance with sample 2d.

SECTION 21A. RECOGNITION OF APPROVALS AND TYPE-APPROVAL MARKS BASED ON INTERNATIONAL AGREEMENTS AND LEGAL INSTRUMENTS OF THE EUROPEAN COMMUNITIES

(1) During the procedure to issue the operating permit, approvals and type-approval marks issued by a foreign state for equipment or vehicle parts, or concerning such items or parts for certain types of vehicles in compliance with the conditions agreed upon with the Federal Republic of Germany are recognized. The same applies to approvals and type-approval marks issued by the Federal Office for Motor Traffic for such items or parts or in respect to them for certain vehicle types, if the approval has been given in compliance with the conditions agreed upon between the Federal Republic of Germany and foreign states. Section 22a remains unaffected.

(1a) Paragraph (1) applies accordingly to approvals and type-approval marks which are issued or have to be recognized on the basis of legal instruments of the European Communities.

(2) The type-approval mark according to paragraph (1) consists of a circle with the letter "E" inside and the key figure of the State that issued the approval, as well as the approval number next to this circle, if necessary, the number of the international agreement with the letter "R", and possibly additional figures. The type-approval mark according to paragraph (1a) consists of a rectangle with the letter "e" and the key figure or the key letters inside of the State that has issued the approval, the type approval number next to this rectangle as well as any additional figures. For all cases, the key figure for the Federal Republic of Germany is "1".

(3) An equipment part or a vehicle part may bear a type approval mark of the kind designated in paragraphs (1) through (2) only if it complies with the approval in every respect. Markings which are easily confused with such a type-approval mark may not be attached to any equipment or vehicle parts.

SECTION 21B. RECOGNITION OF TESTS BASED ON LEGAL INSTRUMENTS OF THE EUROPEAN COMMUNITIES

In the proceedings for issuance of the operating permit tests are recognized which, on the basis of harmonized provisions, have been made and certified pursuant to section 19, paragraph (1), sentence 2.

SECTION 21C. (RESCINDED)

SECTION 22. OPERATING PERMIT FOR VEHICLE PARTS

(1) The operating permit may also be issued separately for vehicle parts if the part constitutes a technical unit which can be treated independently in the permit procedure. If the parts may only be used on vehicles of a certain type or a certain model, or only for a certain type of installation or attachment, the operating permit shall be limited to that effect. The validity of the operating permit may be made subject to an inspection of the installation or attachment. The inspection shall be carried out by an officially recognized expert or examiner for motor vehicle traffic or a motor vehicle expert or official pursuant to number 4 of annex VIII b of this Ordinance. In the cases of sentence 3, the inspecting agency pursuant to sentence 4 shall certify on the certification thereof (sec 19, para (4), sent 1) the proper installation or attachment and at the same time state the vehicle manufacturer and type, as well as the vehicle identification number.

(2) For this procedure the provisions governing the issuance of operating permits for vehicles apply accordingly. In the case of parts to be manufactured or manufactured in series, the provisions of section 20 will be followed accordingly; the owner of a general operating permit for vehicle parts shall certify that the parts of a certain type correspond to the model that has been authorized by placing on each part the type symbol assigned to him for use. In addition, he shall add to each manufactured part a printed copy or photocopy of the operating permit or the extract from such permit and, if necessary the certificate thereof (sec 19, para (4), sent 1). In case of vehicle parts which do not belong to an approved type, section 21 shall be applied; the expert opinion by the officially recognized expert for motor vehicle traffic shall, in case it does not object to the issuance of an operating permit, be entered in the motor vehicle certificate if the part is intended for installation or attachment to a specific vehicle subject to registration. If necessary, the registration office shall enter below the expertise:

"Operating permit issued".

The same note with a brief description of the approved part shall be entered in the certificate to be carried along or safekept pursuant to section 4, paragraph (5), of the Vehicle Licensing Ordinance and in the trailer list if such list was issued.

(3) Instead of an operating permit pursuant to paragraph (1), parts for subsequent installation or attachment (sec 19, para (3), no 1, letter b, or no 3) may also be approved within the scope of a general operating permit for a vehicle or a supplement thereto (sec 20); paragraphs (1) and (2), sentences 2 and 3, apply accordingly. The supplement may also include vehicles which were manufactured prior to the approval of the supplement.

SECTION 22A. TYPE APPROVAL FOR VEHICLE PARTS

(1) The below listed equipment, no matter if used in vehicles subject or not subject to registration, must be of an officially approved construction—

1. Heating systems in motor vehicles, with the exception of electrical heating systems as well as warm water heating systems for which the cooling water of the motor is used as a source of heat (sec 35c).

1a. Tires (sec 36, para (1a));

2. Slide control devices (sec 37, para (1), sent 2).

3. Panes of compound glass (sec 40) and foils for panes of compound glass.

4. Frontal protection systems (sec 30c, para (4))

5. Overrun brakes (sec 41, para (10)); except their transmission systems and overrun brakes which have been tested pursuant to the provisions stipulated in the annex re section 41, paragraph (18), on brake systems and whose compliance has been certified in the prescribed form.

6. Devices to connect vehicles (sec 43, para (1)) with the exception of—

a) Devices that cannot be treated separately in the approval procedure for technical reasons (e.g. drawbars of two-wheeled trailers if they are part of the frame and are not adjustable).

b) Tractor linkage drawbars, their connecting equipment, and three-point attachment to agricultural or forestry tractors or work machines.

c) Draw gear on agricultural and forestry work implements that is carried behind motor vehicles and can only operate according to its purpose while driving if it is designed to connect with the equipment mentioned under letter b.

d) Towing and switching devices including towing rods and ropes.

e) Perches.

f) Connecting systems on equipment attached to agricultural or forestry tractors.

7. Headlamps for main beam and for low beam as well as for main beam and low beam (sec 50).

8. Position lamps (sec 51, paras (1) and (2); sec 53b, para (1)).

8a. Tracking lights (sec 51, para (4)).

8b. Side marker lamps (sec 51a, para (6)).

9. Parking lights, parking warning plates (sec 51c).

9a. End outline marker lamps (sec 51b).

10. Fog lights (sec 52, para (1)).

11. Warning lights emitting flashing blue light (sec 52, para (3)).

12. Warning lights emitting flashing yellow light (sec 52, para (4)).

12a. Backup lights (sec 52a).

13. Rear position lamps (sec 53, paras (1) and (6), sec 53b).

14. Stop lights (sec 53, para (2)).

15. Retro-reflectors (sec 51, para (2); sec 51a, para (1); sec 53, paras (4), (6), and (7); sec 53b; sec 66a, para (4), of this Ordinance; sec 22, para (4), of the Road Traffic Ordinance).

16. Warning triangles and warning lights (sec 53a, paras (1) and (3)).

16a. Rear fog lights (sec 53d).

17. Direction indicators (blinking lights) (sec 53b, para (5); sec 54).

17a. Portable flashing lights and red-and-white hazard markings for movable loading platforms (sec 53b, para (5)).

18. Light sources for lighting systems subject to type approval if the light sources are not a fixed part of the systems (sec 49a, para (6); sec 67, para (10), of this Ordinance; sec 22, paras (4) and (5), of the Road Traffic Ordinance).

19. Warning devices producing a series of sounds of various basic frequencies – klaxon – (sec 55, para (3)).

20. Tachographs (sec 57a).

21. Lighting devices for license number plates (sec 10 of the Vehicle Licensing Ordinance).

22. Generators, headlights, rear position lamps, red, yellow and white retro-reflectors, pedal reflectors and retro-reflecting stripes on tires or between spokes for bicycles (sec 67, paras (1) through (7) and (11)).

23. (Rescinded.)

24. (Rescinded.)

25. Safety belts and other restraining devices in motor vehicles.

26. Lights to secure loads projecting beyond the rear (sec 22, paras (4) and (5), of the Road Traffic Ordinance).

27.Child restraining devices in motor vehicles (sec 21, para (1a), of the Road Traffic Ordinance).

(1a) Section 22, paragraph (1), sentences 2 through 5, shall apply accordingly.

(2) Vehicle parts which must be constructed in an officially approved manner, may be offered, sold, acquired or used within the territorial scope of this Ordinance only if they bear an officially required and assigned type-approval mark. The design of the mark and the procedure to be followed will be established by the Federal Ministry of Transportation, Construction, and Urban Development; to this extent, the Ordinance Concerning Vehicle Parts (*Fahrzeugteileverordnung*) of 12 August 1998 (Federal Law Gazette I, p. 2142) applies.

(3) Paragraphs (1) and (2) are not applicable to—

1. Equipment used for test purposes in road traffic if the driver of the vehicle carries a respective official certificate and presents it for examination to competent persons upon request,

2. Equipment, with the exception of lighting equipment for bicycles and light sources for headlights, which has been brought into the territorial scope of this Ordinance and is used on vehicles manufactured outside the territorial scope of this Ordinance, and which in its effect approximately corresponds to equipment of the same type examined pursuant to paragraph (1) and is recognizable as such,

3. Equipment used on vehicles whose registration is based on an administrative procedure where an EU member state certifies that the type of a vehicle, of a system, of a component, or a separate technical unit complies with the pertinent technical requirements of Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the operating permit of motor vehicles and their trailers (OJ L 42, 23.2.1970, p. 1)—last amended by Directive 2004/104/EC (OJ L 337, 13.11.2004, p.13)—of Council Directive 92/61/EEC of 30.6.1992 relating to the operating permit of two- or three-wheel motor vehicles (OJ L 225, 10.8.1992, p. 72)—last amended by Directive 2000/7/EC (OJ L 106, 3.5.2000, p. 1)—of Directive 2007/46/EC, or of Directive 2002/24/EC, or of Directive 2003/37/EC, as amended, or a separate directive.

(4) Paragraph (2) is not applicable to devices which have been separately approved within the meaning of the Ordinance Concerning Vehicle Parts. If such devices are used in traffic, the certificate containing the approval shall be carried along and handed to competent persons for examination upon request; this does not apply if the approval is stated in the vehicle certificate, in the certification pursuant to section 4, paragraph (5), of the Vehicle Licensing Ordinance, or in the list of trailers carried along in lieu of the licensing certificate part II.

(5) A vehicle part may bear an officially assigned type-approval mark of the kind designated in paragraph (2) only if it completely corresponds to the type approval. Marks which are confusingly similar to an officially assigned type-approval mark may not be attached to vehicle parts.

(6) Paragraphs (2) and (5) shall apply accordingly to equipment which requires an EEC-type approval.

SECTION 23. EXPERT OPINION ON THE CLASSIFICATION OF A VEHICLE AS OLD-TIMER

In order to classify a vehicle as old-timer as defined in section 2, number 22, of the Vehicle Licensing Ordinance, it is required to obtain an expertise prepared by an officially recognized expert or tester or test engineer. The appraisal shall be conducted in accordance with a directive published in the Traffic Journal (*Verkehrsblatt*) upon approval by the competent higher *Land* authorities and the expert opinion shall be prepared according to a sample stipulated in the directive. In the course of the appraisal, an inspection shall also be made which, in its scope, equals a main inspection (*Hauptuntersuchung (HU))* pursuant to section 29, unless an expert opinion pursuant to section 21 is prepared simultaneously with the appraisal.

SECTION 24 THROUGH 28. (RESCINDED)

SECTION 29. INSPECTION OF MOTOR VEHICLES AND TRAILERS

(1) Holders of vehicles subject to licensing as defined in section 3, paragraph (1), of the Vehicle Licensing Ordinance and vehicles required to bear a license plate pursuant to section 4, paragraphs (2) and (3), sentence 2, of the Vehicle Licensing Ordinance shall have their vehicles inspected at regular intervals at their cost in accordance with annex VIII in conjunction with annex VIIIa. Exempt are vehicles—

1. With red license number plates or short-term license plates.

2. Of the Federal Armed Forces and of the Federal Police.

The highest *Land* authorities shall decide on the inspection of vehicles of the fire departments and the disaster relief services on a case by case basis or in general.

(2) The holder shall furnish proof of the month during which the vehicle is due at the latest for the—

1. Main inspection by an inspection badge affixed to the official license plate according to annex IX,

2. Safety check by an inspection mark in combination with an *SP* (= *Sicherheitsprüfung*) sign pursuant to annex IXb.

Inspection badges shall be issued by the authority responsible pursuant to *Land* law or by persons authorized to carry out main inspections and are to be permanently fastened tamper-proof to the rear license plate. Inspection marks shall be assigned by the authority responsible pursuant to *Land* law and shall be fixed by the holder or his agent on the SP sign in accordance with the provisions of annex IXb, or they shall be assigned by persons authorized to carry out main inspections or safety checks, who will then attach them on the SP signs in accordance with the provisions of annex IXb. SP signs may be fastened according to the provisions of annex IXb by the authority responsible pursuant to *Land* law, by persons authorized to carry out main inspections, by the vehicle manufacturer, the holder or his agent.

(3) An inspection badge may only be assigned and attached if the provisions of annex VIII are complied with. With the inspection badge that will be attached after the main inspection it is certified that the vehicle complied with the regulations pursuant to number 1.2 of annex VIII at the time of this main inspection. If the vehicle only has minor defects, the inspection badge can be assigned and attached in deviation from sentence 1 if an immediate correction of the defects can be expected.

(4) An inspection mark may be assigned and fixed to the vehicle if the vehicle does not show any defects after completion of the safety check in accordance with number 1.3 of annex VIII. The provisions of number 2.6 of annex VIII remain unaffected.

(5) The holder must ensure that the inspection badge fixed pursuant to paragraph (3) and the inspection mark fixed pursuant to paragraph (4) as well as the *SP* sign are in a proper condition; they may neither be covered nor soiled.

(6) The month and year when the period for the next—

1. Main inspection expires must be noted by the person who assigned and fixed the inspection badge—

a) In the vehicle certificate part I for vehicles processed under the standard registration process, or

b) For other vehicles on the certificate in connection with the inspection stamp of the inspecting agency or the *HU* code and the identification number of the person or agency carrying out the inspection, which must be carried along or kept pursuant to section 4, paragraph (5), of the Vehicle Licensing Ordinance.

2. Safety check expires must be noted in the inspection protocol by the person who assigned the test badge.

(7) The inspection badge and the inspection mark become invalid when the indicated month has elapsed. Their validity is extended by one month if in the course of the main inspection or safety check defects are determined which must be eliminated before a new inspection badge or inspection mark is assigned. Sentence 2 also applies if in case of minor defects no inspection badge according to paragraph (3), sentence 3, is assigned and it applies to inspection marks in the cases of number 2.4, sentence 6, of annex VIII. If no valid inspection badge or inspection mark is attached to a vehicle for which an inspection badge or inspection mark in combination with an *SP*-sign is required, the authority responsible under *Land* law may prohibit or limit operation of the vehicle on public roads for the period until the above items of proof are attached. The affected person shall observe the prohibition or limitation.

(8) All items that are confusingly similar to the inspection badge described in annex IX or the inspection mark described in annex IXb in combination with the *SP*-sign may not be attached to motor vehicles and their trailers.

(9) The person responsible to carry out main inspections or safety checks shall prepare an inspection report for main inspections and a test protocol for safety checks in accordance with annex VIII and hand it to the vehicle holder or his agent.

(10) The holder shall keep the inspection report at least until the next main inspection and the test protocol until the next safety check. Upon their request, the vehicle holder or his agent shall hand the inspection report, in case of vehicles pursuant to paragraph (11), together with the test protocol and the inspection book, to competent persons and to the authority responsible pursuant to the *Land* law for inspection. If the last inspection report or the last test protocol cannot be submitted, the holder shall obtain copies from the inspecting agencies at his own expense or shall have a main inspection or safety check performed. Sentences 2 and 3 do not apply for the main inspection report at the time of the vehicle registration if the due date of the next main inspection is stated in another official document which is available to the registration authority.

(11) Holders of vehicles for which safety checks have to be performed in accordance with the provisions of number 2.1 of annex VIII must keep inspection books from the date of registration based on a sample published in the Traffic Journal with the consent of the competent highest *Land* authorities. Inspection reports and test protocols must be filed in the inspection books at least for the period required according to paragraph (10).

(12) The person responsible to carry out the main inspections or safety checks shall enter their completion in the inspection book by indicating the date and in case of motor vehicles also the mileage.

(13) Vehicle holders shall keep the inspection books until the vehicle is finally put out of operation.

PART II A MANDATORY INSURANCE

29A. THROUGH 29H. (RESCINDED)

PART III
CONSTRUCTION AND OPERATION REGULATIONS

SUBPART 1
GENERAL PROVISIONS

SECTION 30. DESIGN OF VEHICLES

(1) Vehicles must be constructed and equipped in such a manner that—

1. Their normal operation in traffic does not result in damage to anyone and does not endanger, hinder or harm anyone more than is avoidable.

2. The occupants, especially in case of accidents, are protected from injuries to the extent possible, and that the extent and consequences of injuries are minimized.

(2) Vehicles will be constructed and maintained in such a way that they do not damage the road.

(3) Parts of vehicles which are important for the roadworthiness and a safe operation, and which are particularly exposed to wear and tear or damage, must be easily examinable and replaceable.

(4) Instead of the provisions of this Ordinance, the individual directives as amended may be applied which are stated in—

1. Annex IV of Directive 2007/46/EC, or

2. Annex II, chapter B of Directive 2003/37/EC, or

3. Annex I of Directive 2002/24/EC

in the version currently in force. The respective index of individual directives stated in annex IV of Directive 2007/46/EC, in annex II of Directive 2003/37/EC on type-approvals, and in annex I of Directive 2002/24/EC will be published by the Federal Ministry of Transportation, Construction, and Urban Development in the Federal Traffic Gazette by statement of the abbreviated name and the first reference in the Official Journal of the European Communities, and updated. The individual directives stated in sentence 1 shall be applied from the point in time they enter into effect and have been published pursuant to sentence 2. If in an individual directive its binding application is stipulated, only that directive is governing.

SECTION 30A. MAXIMUM DESIGN SPEED, MAXIMUM TORQUE, MAXIMUM NET ENGINE POWER

(1) Motor vehicles must be constructed and equipped according to the state of the art in such a manner as to make it considerably difficult to make alterations resulting in a change of the maximum design speed (speed which cannot be exceeded by a motor vehicle on a level road due to its design when used according to its purpose). If this is not possible alterations must be made easily recognizable.

(1a) With regard to measures against unauthorized interference, small motorcycles with two wheels and motor cycles must comply with the provisions of chapter 7 of Directive 97/24/EC of the European Parliament and the Council of 17 June 1997 on specific construction parts and characteristics of two-wheel or three-wheel motor vehicles (OJ L 226, 18.8.1997, p. 1)last amended by Directive 2009/108/EC (OJ L 213, 18.8.2009, p. 10) in its effective version as indicated in the annex to this provision.

(2) Trailers must be designed and equipped for a speed of at least 100 km per hour. If they are designed or equipped for a lower speed, they must be marked accordingly pursuant to section 58.

(3) In case of motor vehicles pursuant to Article 1 of Directive 2002/24/EC, the provisions indicated in the annex to this provision shall be applied for the determination of the maximum design speed as well as for the determination of the maximum torque and maximum performance of the engine.

SECTION 30B. COMPUTATION OF THE CUBIC CAPACITY

The cubic capacity shall be computed as follows:

1. The value 3,1416 shall be put in for π.

2. The values for stroke and bore will be put in millimeters, with the first decimal place being rounded up or off.

3. The cubic capacity shall be rounded up or off to the full cubic centimeters.

4. If the decimal place to be rounded is followed by a digit from 0 to 4, it shall be rounded off, if it is followed by a digit from 5 to 9 it shall be rounded up.

SECTION 30C. PROTRUDING OUTER EDGES, FRONTAL PROTECTION SYSTEMS

(1) Parts may not protrude from the contour of vehicles so that traffic is not endangered more than absolutely necessary.

(2) Protruding outer edges at passenger cars must meet the requirements stipulated in the annex to this provision.

(3) Protruding outer edges at two-wheel or three-wheel motor vehicles pursuant to section 30a, paragraph (3), must meet the requirements stipulated in the annex to this provision.

(4) Frontal protection systems installed at passenger cars, trucks, tractors and semitrailer towing vehicles with at least four wheels, a maximum design speed of more than 25 km/h and a maximum permissible overall mass of 3.5 metric tons must meet the requirements stipulated in the annex to this provision.

SECTION 30D. MOTORBUSES

(1) Motorbuses are motor vehicles for the transportation of passengers with more than eight seats, except the driver's seat.

(2) Bodies of motorbuses comprising the entire interior and exterior special mountings of this motor vehicle type as independent technical units are considered motorbuses pursuant to paragraph (1).

(3) Motorbuses must comply with the provisions stipulated in the annex to this provision.

(4) Motorbuses with standing room transporting passengers on routes with numerous stops, which have more than 22 passenger seats, must, in addition, comply with the regulations on technical equipment for the transportation of persons with limited mobility pursuant to the provisions stipulated in the annex to this provision. This applies accordingly for other motorbuses which are equipped with technical installations for the transportation of persons with limited mobility.

SECTION 31. RESPONSIBILITY FOR THE OPERATION OF VEHICLES

(1) Whoever operates a vehicle or a train of vehicles connected with each other, must be a qualified driver.

(2) The vehicle holder may not order or permit the operation if he knows or must know that the driver is not qualified or the vehicle, train of vehicles and load or number of passengers do not comply with regulations, or that the traffic safety of the vehicle is prejudiced by the load or number of passengers.

SECTION 31A. LOGBOOK

(1) The authority responsible pursuant to *Land* law may impose upon a holder of a vehicle to keep a logbook for one or several vehicles registered or to be registered in his name, if the identification of a driver after a violation of traffic regulations was not possible. The administrative authority may determine one or several replacement vehicles.

(2) The holder of the vehicle or his agent shall enter the following data in the logbook for a specific vehicle and for each trip:

1. Before the trip:

   a) Last name, first name and address of the vehicle operator.

   b) Official license plate number of the vehicle.

   c) Date and time when the trip was started.

2. Immediately after the end of the trip: Date, time, and signature.

(3) Upon request, the vehicle holder shall present the logbook to—

a) The agency that ordered that a logbook be kept or to an agency determined by the ordering agency, or

b) Other competent persons

for review at any time or place determined by the ordering agency and shall store it for 6 months after the time during which it had to be kept.

SECTION 31B. INSPECTION OF ITEMS TO BE CARRIED ALONG
Upon request, drivers of vehicles must present and hand over to competent persons for inspection the following items that need to be carried along in the vehicle—

1. Fire extinguisher (sec 35g, para (1)).

2. First-aid material (sec 35h, paras (1), (3), and (4)).

3. Wheel chocks (sec 41, para (14)).

4. Warning triangles and signal lamps (sec 53a, para (2)).

5. Portable blinking lamps (sec 53b, para (5)), windproof hand lamps (sec 54b).

6. Lights and retro- reflectors (sec 53b, para (1), sent 4, second half of sentence, and para (2), sent 4, second half of sentence),

7. Headlights and rear position lamps (sec 67, para (11), no. 2, second half of sentence).

SECTION 31C. INSPECTION OF VEHICLE WEIGHTS
If the operator of a vehicle, upon request of a competent person, is not able to prove compliance with the axle loads and total weights permissible for his vehicle, he is obliged to have them checked upon direction by that person by means of scales or an axle load measuring device (wheel load measuring device). After the weighing, the operator shall be handed a certificate stating the result of the weighing. If an overweight is stated that is not permissible, the holder of the vehicle will bear the costs of the weighing. The person checking the weight may request the operator to reload or unload the vehicle, depending on the excess load; the vehicle operator must comply with this request; the holder of the vehicle shall bear the costs.

SECTION 31D. WEIGHTS, SIZE AND DESIGN OF FOREIGN MOTOR VEHICLES

(1) Regarding their weight and size foreign motor vehicles and their trailers must comply with the provisions of sections 32 and 34.

(2) Seats in foreign motor vehicles for which legal provisions of the country in which they are registered require safety belts must be equipped with such safety belts.

(3) Foreign motor vehicles for which licensing certificates or international registration certificates were issued by a member state of the European Union or by another state which is party to the Agreement on the European Economic Area, and which are designated in Council Directive 92/6/EEC of 10 February 1992 concerning the installation and use of speed limitation devices for specific motor vehicle categories in the Community (OJ L 57, 2.3.1992, p. 27), amended by Directive 2002/85/EC (OJ L 327, 4.12.2002, p. 8), must be equipped with speed limitiation devices in accordance with the legal provisions of the state in which the vehicles are licensed. The speed limitation devices must be used.

(4) Pneumatic tires of foreign motor vehicles and trailers whose licensing certificate or international registration certificate was issued by a member state of the European Union or by another state which is party to the Agreement on the European Economic Area, and which are designated in Council Directive 89/459/EEC of 18 July 1989 concerning the approximation of legal provisions of the member states on the tread depth of tires on specific motor vehicle categories and their trailers (OJ L 226, 3.8.1989, p. 4), must have a minimum depth of 1. 6 millimeters at the main tread of the tire cover; the wide tread grooves in the center area of the tire cover, covering approximately three thirds of the cover width, are considered to be the main tread.

SECTION 31E. LOW-NOISE FOREIGN MOTOR VEHICLES
Foreign motor vehicles belonging to noise category G 1 as defined under number 3.2.1 of annex XIV are considered low noise vehicles; they may be identified with the label “Low Noise Vehicle” (*Geräuscharmes Fahrzeug*) pursuant to annex XV. For other foreign vehicles, section 49, paragraph (3), sentences 2 and 3, shall apply accordingly.

SUBPART 2
MOTOR VEHICLES AND THEIR TRAILERS

SECTION 32. DIMENSIONS OF VEHICLES AND VEHICLE COMBINATIONS

(1) For motor vehicles and trailers including exchangeable carried-along load-carrying devices (sec 42, para (3))—except for snow removers and snow-fighting vehicles—the maximum authorized total width must not exceed the following measurements:

1. General 2.55 m

2. Agricultural or forestry work machines and tractors and special vehicles with exchangeable agricultural or forestry equipment as well as vehicles with attached equipment for road maintenance 3.0 m

3. Trailers drawn behind motorcycles 1.0 m

4. Fixed or removable equipment on refrigerated vehicles that are equipped for transporting goods requiring a certain temperature and have side walls that are, including thermal insulation, at least 45 mm thick 2.6 m

5. Passenger cars 2.5 m

The width of a vehicle shall be determined pursuant to ISO standard 612-1978, definition number 6.2. In deviation from the standard, the following equipment is not included when measuring the vehicle width:

1. Devices to protect and attach the custom seals.

2. Devices to secure the tarpaulin and respective protection devices.

3. Projecting flexible parts of a spray-suppression system within the meaning of Council Directive 91/226/EEC of 27 March 1991 on the approximation of the laws of the Member States relating to the spray-suppression systems of certain categories of motor vehicles and their trailers (OJ L 103, f 23.4.1991, p. 5), last amended by Directive 2010/19/EU (OJ L 72, 20.3.2010, p. 17).

4. Lighting systems.

5. Loading ramps in driving position, movable loading platforms and similar equipment in driving position, if they do not project more than 10 mm from the vehicle sides and the edges of the loading ramps pointing to the front or to the back are rounded off with a radius of at least 5 mm; the sides shall be rounded off with a radius of at least 2.5 mm.

6. Mirrors and other systems for indirect view.

7. Tire alarm.

8. Tire-pressure indicator.

9. Telescopic or foldable steps in driving position.

10. The bulge of the tire walls above the contact surface of the tire.

Measurements are taken with doors and windows closed and wheels in a straight position.

(2) In case of motor vehicles and trailers including carried along exchangeable load bearing equipment (sec 42, para (3)) the total maximum permissible height may not exceed the following dimension: 4.0 m
The vehicle height shall be determined in accordance with ISO standard 612-1978, definition number 6.3. In deviation from this standard, the following equipment shall not be included when measuring the vehicle height:

1. Flexible antennae.

2. Pantograph-type current collectors or rod collectors in extended position.

In case of vehicles with axle lifting system, the effect of that system shall be considered.

(3) In case of motor vehicles and trailers including carried-along exchangeable load bearing equipment and all equipment parts carried along during operation of the vehicle (sec 42, para (3)) the total maximum permissible length may not exceed the following dimensions:

1. Motor vehicles and trailers - with the exception of motorbuses and semi trailers - 2.0 m

2. Two-axle motorbuses – including detachable accessories - 13.50 m

3. Motorbuses with more than two axles – including detachable accessories - 15.00 m

4. Motorbuses that are constructed as articulate vehicles (motor vehicles with a useful area that is divided by a joint, but without the connected part being a separate vehicle) 18.75 m

(4) In case of vehicle combinations including carried along exchangeable load bearing equipment and all equipment parts carried along during operation of the vehicle (sec 42, para (3)) the total maximum permissible length may not exceed the following dimensions by taking into consideration the provisions under paragraph (3), number 1:

1. Semi trailer vehicles (tractor with trailer) and vehicle combinations (trains) of the same type as a semi trailer vehicle - except semi trailer vehicles under number 2 - 15.50 m

2. Semi trailer vehicles (tractor with trailer) if the maximum permissible partial lengths of the trailer

a) Axle of semi trailer fifth-wheel coupling pin to the rear limit 12.0 m, and

b) Front overhang radius 2.04 m

are not exceeded 16.50 m

3. Vehicle trains (motor vehicles with one or two trailers) - except vehicle trains under number 4 above - 18.0 m

4. Vehicle trains consisting of one truck with one trailer for the transportation of goods: 18.75 m.

Their maximum permissible partial lengths may not exceed the following dimensions:

a) Maximum distance between the front exterior point of the loading surface behind the truck cabin and the rear exterior point of the loading surface of the trailer of the vehicle combination, minus the distance between the rear limit of the motor vehicle and the front limit of the trailer: 15.65 m

and

b) Maximum distance between the front exterior point of the loading surface behind the truck cabin and the rear exterior point of the loading surface of the trailer of the vehicle combination: 16.40 m.

For vehicles with surface mounting - for trucks, however, without cabin - the partial lengths include the surface mounting.

(4a) For vehicle combinations consisting of one motorbus and one trailer the maximum authorized length, in compliance with the provisions in paragraph (3), numbers 1 through 3, shall be: 18.75 m.

(5) The length or partial length of a single vehicle or vehicle combination - with the exception of the vehicle combinations listed in paragraph (7) and their individual vehicles - is the length measured with load supports, load surfaces, body walls, or parts thereof fully pulled out, pushed out, or folded out to the front or rear, including all parts of equipment carried along when the vehicle is operated (sec 42, para (3)); in case of vehicle combinations the longitudinal center lines of the motor vehicle and its trailer or trailers must form a straight line. For vehicle combinations with drawbars without automatic length adjustment, the position which is in compliance with section 32d (behavior in curves) is taken as a basis without further action of the vehicle operator or any other person. If drawbars with automatic length adjustment are used, they must go back to the original length without delay at the end of the curve.

(6) The lengths and partial lengths of an individual vehicle or vehicle combination shall be determined in accordance with ISO standard 612-1978, definition number 6.1. In deviation from this standard, the following equipment shall not be included for the measuring of the length or partial length:

1. Windshield wipers and washer devices.

2. Front and rear license plates.

3. Fastening and protection equipment for customs seals.

4. Devices to secure the tarpaulin and it protective gear.

5. Lighting systems.

6. Mirrors and other systems for indirect view.

7. Vision-enhancing equipment.

8. Air intake tubes.

9. Longitudinal fastening devices for exchangeable bodies.

10. Steps and handle bars.

11. Ram rubbers and similar equipment.

12. Lifting platforms, access ramps and comparable devices in driving position.

13. Connection devices at motor vehicles.

14. Refrigerating sets and other additional sets installed in front of the loading surface of vehicles other than semi-trailers.

15. Rod collectors on electrical vehicles.

16. Exterior sun visors.

However, this applies only if the loading surface is neither directly nor indirectly extended by the named equipment. Equipment fixed at the rear of the tractor or at the front of the trailer of vehicle combinations shall, however, be included in the lengths or partial lengths of vehicle combinations; they may not be added to those lengths.

(7) For vehicle combinations similar to trains used for the transportation of vehicles, the provisions of paragraph (4), number 4, apply with regard to the length; for semi-trailer vehicles used for the transportation of vehicles, the provisions of paragraph (4), number 2, shall apply. Exceeding of length by load supports used for additional securing and stability of the authorized projecting load will not be taken into consideration for these vehicle combinations and semi-trailer vehicles if the load is also projecting from the load supports. For the determination of the partial lengths loading ramps between truck and trailer in driving position shall not be considered.

(8) No tolerances shall be authorized on the measures stated in paragraphs (1) through (4) above.

(9) In deviation from paragraphs (1) through (8) above, motor vehicles in accordance with section 30a, paragraph (3), may not exceed the following measures:

1. Width:

a) Motorcycles and three-wheel and four-wheel motor vehicles	2.00 m
b) Two-wheel small motorcycles and power-assisted bicycles, however,	1.00 m
2. Height:	2.50 m
3. Length:	4.00 m

SECTION 32A. DRAWING OF TRAILERS

One trailer only may be drawn behind motor vehicles, however, not to transport passengers (motorbus trailer). Tractors may draw two trailers if the authorized length for trucks with one trailer is not thereby exceeded. No trailers will be drawn behind semi trailer motor vehicles. Motorbuses may draw only one trailer designed for the transportation of luggage.

SECTION 32B. UNDERRUN PROTECTION

(1) Motor vehicles, trailers and vehicles with exchangeable load racks with a maximum design speed of more than 25 km per hour where the distance between the rear boundary and the last rear axle is more than 1,000 mm and where the rear chassis in its total width or the main parts of the vehicle body have a clearance of more than 550 mm above the roadway when the vehicle is unloaded, must have a rear underrun protection.

(2) The rear underrun protection device must comply with Council Directive 70/221/EEC of 20 March 1970 on the approximation of the laws of the Member States relating to liquid fuel tanks and rear protective devices for motor vehicles and their trailers (OJ L 76, 6.4.1970, p. 23) last amended by Directive 2006/96/EC (OJ L 363, 20.12.2006, p.81) in the version applicable pursuant to section 30, paragraph (4), sentence 3.

(3) Paragraphs (1) and (2) do not apply to—

1. Agricultural or forestry tractors.

2. Working machines and high-lift trucks.

3. Semi-trailer towing vehicles.

4. One-axle trailers, which are designed to transport long objects.

5. Vehicles where the installation of a rear underrun protection is incompatible with the use of the vehicle.

(4) Motor vehicles used for the transportation of goods with at least four wheels and a maximum speed of more than 25 km/h due to their design and an authorized total weight of more than 3.5 metric tons must be equipped with a front underrun protection device which is in compliance with the provisions stipulated in the annex to this provision.

(5) Paragraph (4) does not apply to—

1. Off-road vehicles.

2. Vehicles whose purpose is incompatible with the provisions relating to a front underrun protection.

SECTION 32C. SIDE PROTECTION DEVICES

(1) The purpose of side protection devices is to prevent pedestrians, bicycle or motorcycle riders from getting under the vehicle from the side and then being rolled over by the wheels.

(2) Trucks, tractors and motor vehicles, which must be considered equal to trucks or tractors because of the constructional characteristics of their chassis, with a maximum speed of more than 25 km/h due to their construction and their trailers must be equipped with side protection at both longitudinal sides, if their permissible weight exceeds 3.5 t.

(3) Paragraph (2) does not apply to—

1. Tractors used in agriculture and forestry and their trailers.

2. Semi-trailer towing vehicles.

3. Trailers constructed for the transportation of long loads that cannot be divided in length.

4. Vehicles that have been constructed for specific purposes and have lateral protection devices that are incompatible with the intended purpose.

(4) The lateral protection must be in accordance with the requirements stated in the annex to this provision.

SECTION 32D. BEHAVIOR IN CURVES

(1) Motor vehicles and vehicle combinations must be constructed and designed in such a way that when driving a full circle of 360° the covered ring surface with an external radius of 12.50 m does not exceed 7.20 m in width, to include carried along exchangeable load racks (sec 42, para (3)). The front exterior boundary - in case of vehicles with rear-wheel steering the rear exterior boundary - of the vehicle must be on the 12.50 m radius circle.

(2) When turning from the tangent line into the circle pursuant to paragraph (1), no part of the motor vehicle or vehicle combination may cut across this line by more than 0.8 m to the outside. Notwithstanding the above provision, self-propelled combine-harvesters may cut across the line when turning from the tangent line into the circle by up to 1.60 m to the outside.

(3) In case of motorbuses a line shall be drawn on the ground along the vertical plane surface when the vehicle does not move, touching the vehicle side positioned to the outside of the circle. In case of motorbuses constructed as articulate vehicles, the two rigid parts must be aligned parallel to this plane surface. If the vehicle, out of a straight movement, drives into the ring surface described in paragraph (1), no vehicle part may protrude more than 0.60 m beyond the vertical plane surface.

SECTION 33. TOWING OF VEHICLES

(1) Vehicles which are designed to be operated as motor vehicles, may not be operated as trailers. The administrative authorities (registration authorities) may approve an exception in individual cases.

(2) If exceptions are approved pursuant to paragraph (1), the following special provisions apply:

1. The towing vehicle may draw one vehicle only. The towed vehicle must be steered by one person who is in possession of the required driving permit for motor vehicles. Sentence 2 does not apply if the two vehicles are connected by an implement which also guarantees a safe steering of the towed vehicle and the towed load does not exceed more than half of the dead weight of the towing vehicle, however, in no case is more than 750 kg.

2. The towed vehicle is not subject to the provisions concerning the registration procedure.

3. The towed vehicle together with the towing vehicle does not form a train of vehicles as defined under section 32.

4. With regard to sections 41, 53, 54, 55, and 56, the towed vehicle is considered to be a motor vehicle.

5. Section 43, paragraph (1), sentences 2 and 3, as well as paragraph (4), sentence 1, are not applicable.

6. Vehicles with a permissible total weight exceeding 4 metric tons may be carried along only be means of a tow-rod.

7. The lighting systems prescribed or specified as authorized for the use as motor vehicle may be attached to the towed vehicle. As far as they are not required for trailers, they need not be ready for operation.

SECTION 34. AXLE LOAD AND TOTAL WEIGHT

(1) The axle load is the total load that the wheels of one axle or one axle group transmit to the road.

(2) The technically permissible axle load is that axle load that must not be exceeded, taking into consideration the strain on the material and the provisions below:

Section 36, (tires and tread).

Section 41, paragraph (11) (brakes at one-axle trailers and two-axle trailers with an axle distance of less than 1.0 m).

The technically permissible total weight is that weight which must not be exceeded, taking into consideration the strain on the material and the provisions below:

Section 35, (motor capacity).

Section 41, paragraphs (10) and (18) (overrun brake).

Section 41, paragraphs (15) and (18), (sustained-action brake).

(3) The permissible axle load is the axle load which may not be exceeded taking into account the provisions of paragraph (2), sentence 1, and paragraph (4). The permissible total weight is the weight that may not be exceeded taking into account the provisions of paragraph (2), sentence 2, and paragraphs (5) and (6). During the operation of a vehicle or a combination of vehicles, the permissible axle load and the permissible total weight may not be exceeded.

(4) For motor vehicles and trailers with pneumatic tires or those rubber tires specified as permissible in section 36, paragraph (3) - except street rollers - the permissible axle load may not exceed the following values:

1. Single axle load

a) Single axles 10.00 t

b) Single axles (with drive) 11.50 t;

2. Double axle load of motor vehicles, in compliance with the provisions for single axle load

a) Axle distance less than 1.0 m 11.50 t

b) Axle distance from 1.0 m to less than 1.3 m 16.00 t

c) Axle distance from 1.3 m to less than 1.8 m 18.00 t

d) Axle distance from 1.3 m to less than 1.8 m, if the driving axle is equipped with twin tires or a shock absorption recognized as equal pursuant to annex XII, or each driving axle is equipped with twin-tires and a maximum permissible axle load of 9.5 metric tons per axle is not exceeded 19.00 t;

3. Double axle load of trailers in compliance with the provisions for single axle load

a) Axle distance less than 1.0 m 11.00 t

b) Axle distance from 1.0 m to less than 1.3 m 16.00 t

c) Axle distance from 1.3 m to less than 1.8 m 18.00 t

d) Axle distance 1.8 m or more 20.00 t

4. Triple axle load in compliance with the provisions for double axle load

a) Axle distances not exceeding 1.3 m 21.00 t

b) Axle distances of more than 1.3 m and not exceeding 1.4 m 24.00 t.

If vehicles are equipped with different tires from those described in the sentence 1, the axle load may be 4.00 t at a maximum.

(5) For motor vehicles and trailers - except semi-trailers and draw-bar trailers (including center-axle trailer) - with pneumatic tires or those rubber tires specified as authorized in section 36, paragraph (3), the permissible total weight may not exceed the following values in compliance with the provisions for axle loads:

1. Vehicles with a maximum of two axles

Motor vehicles and trailers, each 18.00 t

2. Vehicles with more than two axles - except for vehicles according to numbers 3 and 4

a) Motor vehicles 25.00 t

b) Motor vehicles with a double axle load pursuant to paragraph (4), number 2, letter d 26.00 t

c) Trailers 24.00 t

d) Motorbuses constructed as articulated vehicles 28.00 t

3. Motor vehicles with more than 3 axles, - except for motor vehicles according to number 4

a) Motor vehicles with two double axles whose centers are at a distance of at least 4.0 m from each other 32.00 t

b) Motor vehicles with two articulated axles and with a double axle load pursuant to paragraph (4), number 2, letter d, the maximum permissible load of which must not exceed 5 metric tons per meter, in reference to the distance between the centers of the front and the rear axle, not more than 32.00 t

4. Motor vehicles with more than 4 axles taking into account the provisions stated in number 3 32.00 t

(5a) In deviation from paragraph (5), the provisions stated in the annex to this provision apply to the permissible loads of motor vehicles pursuant to section 30a, paragraph (3).

(6) For vehicle combinations (vehicle trains and semi trailer vehicles), the authorized total weight may not exceed the following values, taking into account the provisions for axle loads, trailing loads and single vehicles:

1. Vehicle combinations with less than 4 axles 28.0 t

2. Combination of vehicles with 4 axles:

Double-axle motor vehicle with double-axle trailer 36.00 t

3. Double-axle semi trailer towing vehicle with double-axle semi trailer

a) With an axle distance of the semi trailer of 1.3 m and higher 36.00 t

b) With an axle distance of the semi trailer of more than 1.8 m if the driving axle is equipped with twin-tires and pneumatic shock absorption or a shock absorption recognized as equal pursuant to annex XII 38.00 t

4. Other vehicle combinations with 4 axles

a) With motor vehicle according to paragraph (5), no. 2, letter a 35.00 t

b) With motor vehicle according to paragraph (5), no. 2, letter b 36.00 t

5. Combinations of vehicles with more than 4 axles 40.00 t

6. Semi trailer vehicle consisting of three-axle semi trailer towing vehicle with two- or three-axle semi trailer, which transports a 40 feet ISO-container in combined traffic as defined in Council Directive 92/106/EEC of 7 December 1992 concerning the establishment of common rules for certain types of combined transport of goods between Member States (OJ L 368, 17.12.1992, p. 38), last amended by directive 2006/103/EC (OJ L, 20.12.2006, p. 344) 44.00 t

(7) The total weight permissible pursuant to paragraph (6) is calculated—

1. For combinations of vehicles, from the total of the permissible total weights of the towing vehicle and the trailer.

2. For combinations of vehicles with draw-bar trailer (center-axle trailers), from the total of the permissible total weights of the towing vehicle and the draw-bar trailer, minus the respective higher value of—

a) Permissible supported load of the towing vehicle,

b) Permissible supported load of the draw-bar trailer,

in case the values are equal, minus this value.

3. For semi trailers, from the total of the permissible total weights of the towing vehicle and the semi trailer minus the respective higher value of the—

a) Permissible vertical load on tractor of the towing vehicle, or

b) Permissible trailer load of the semi trailer,

in case the values are equal, minus this value.

If based on this calculation a value of more than—

28.00 t (para (6), no. 1),
36.00 t (para (6), nos. 2 and 3, letter a, and no. 4, letter b),
38.00 t (para (6), no. 3, letter b),
35.00 t (para (6), no. 4, letter a),
40.00 t (para (6), no. 5) or
44.00 t (para (6), no. 6),

results, 28.00 t, 36.00 t, 38.00 t, 35.00 t, 40.00 t, or 44.00 t will be the permissible total weight.

(8) In case of trucks, semi trailers, and combinations of trucks used for cross-border transport the weight on the driving axle or axles must at least be 25 % of the total weight of the vehicle or combination of vehicles.

(9) The distance between the center of the rear axle of a motor vehicle and the center of the front axle of its trailer shall be at least 3.0 m, for semi trailers and combinations of vehicles used in agriculture and forestry as well as for combinations of vehicles consisting of one towing vehicle and towed working machines, at least 2.5 m. This does not apply to combinations of vehicles with a permissible total weight of the towing vehicle not exceeding 7.5 t or of the trailer not exceeding 3.5 t.

(10) Vehicles with at least four wheels, a maximum design speed of more than 25 km/h due to their construction, and a permissible total weight of more than 3.50 t, which are part of a five- or six-axle combination of vehicles, must in addition comply with the conditions established in the annex to this provision, if they are used for cross-border transport in EC member states and the other states party to the agreement on the European Economic Area.

(11) The provisions stated in the annex to this provision shall be applied to retractable axles or loadable axles.

SECTION 34A. SEATING CAPACITY, LOADING, AND MARKING OF MOTORBUSES

(1) Motorbuses may not transport more persons and luggage than the number of seats and standing room stated in part I of the vehicle registration certificate and the respective total number of passenger seats designated in the vehicle and the maximum indicated weight of luggage.

(2) Upon request of the authorized agent or based on other regulations, a reduced number of seats adjusted to the specific use of the motorbuses may be determined in deviation from the number of seats authorized pursuant to paragraph (1). The reduced number of seats shall be entered into part I of the vehicle registration certificate and be posted in the vehicle at an exposed spot in easy-to read writing.

SECTION 34B. TRACK WHEEL LOAD AND TOTAL WEIGHT OF TRACKED VEHICLES

(1) For vehicles which either partly or totally run on endless tracks or belts (tracked vehicles) the load on one track wheel on an even road must not exceed 2.0 metric tons. The spring-mounted track wheels of a vehicle with a total weight exceeding 8 metric tons must be installed in such a way that the load on a track wheel which is lifted up by 60 mm, if the vehicle is standing, does not exceed double the track wheel load authorized on an even road. In case of tracked vehicles without spring-support and tracks completely consisting of rubber band on the outside the pressure of the bearing surface of the track on a level roadway may not exceed 0.8 N/mm^2. The bearing surface is that part of a track which is actually in contact with the level road surface. The track wheels of tracked vehicles can have either individual spring-support or a spring supporting system for the entire running gear. The total weight of tracked vehicles may not exceed 24 metric tons.

(2) Tracked vehicles may not weight the road with more than 9 metric tons per meter between the front and rear track wheel.

SECTION 35. ENGINE CAPACITY
Trucks and motorbuses, including luggage trailers, semi trailers as well as truck trains must have an engine capacity of at least 5.0 kw, tractors and tractor trains - except for agricultural or forestry purposes - of at least 2.2 kw per ton of the authorized total weight of the motor vehicle and the respective towed load; this does not apply to vehicles operated by electric energy and motor vehicles - also with trailer - which have a maximum design speed not exceeding 25 km per hour.

SECTION 35A. SEATS, SAFETY BELTS, RESTRAINING SYSTEMS, CHILD RESTRAINTS

(1) The driver's seat and its surrounding area as well as the devices used to operate the vehicle must be arranged and designed in such a way that the vehicle may be safely operated also if the safety belt is fastened or another restraining system is used.

(2) Passenger cars, motorbuses and motor vehicles used for the transport of goods with a maximum design speed of more than 25 km/h must, in accordance with the provisions stated in the annex to this provision, be equipped with fastening rails for seats, with seats and, if their authorized total weight does not exceed 3.5 metric tons, also be equipped with headrests at the front exterior seats.

(3) The motor vehicles mentioned in paragraph (2) must be equipped with anchoring devices for the installation of seat belts which are in accordance with the provisions listed in the annex to this provision.

(4) In addition, the motor vehicles listed in paragraph (2) must be equipped with safety belts or restraining systems which are in compliance with the provisions stated in the annex to this provision.

(5) Paragraphs (2) through (4) apply accordingly to motor vehicles with a maximum design speed of more than 25 km/h, which with regard to the room for passengers and the chassis have the same construction characteristics as the motor vehicles described in paragraph (2). In case of recreational vehicles with a permissible total weight of more than 2.5 metric tons it is sufficient if the back seats are equipped with anchoring devices for the installation of lap belts and with lap belts.

(6) Paragraphs (3) and (4) do not apply to motorbuses constructed for the use in short-distance transportation of passengers as well as for standing passengers. These are motorbuses without separate room for luggage as well as motorbuses with authorized standing room for passengers in the aisle and on a surface bigger or equal to a surface for two double seats.

(7) Safety belts and restraining systems must be installed in such a way that their perfect functioning is guaranteed when being used properly and also when all seating space indicated as such is used, and that they will reduce the danger of injuries in case of accidents.

(8) Rearward-facing child restraints may not be used on passenger seats with a ready-for-operation airbag installed in its front. Such passenger seats must be equipped with a warning label prohibiting the use of rearward-facing child restraints on this seat. The warning label in the form of a pictograph can also have explanatory text. It must be fastened permanently and clearly visible for a person who intends to install a rearward-facing child restraint. Annex XXVIII shows an example for an appropriate pictograph. If the warning label cannot be seen while the door is closed a permanent label indicating the existence of an airbag should be clearly visible from the passenger seat.

(9) Motorcycles which carry a co-passenger must have a seat for co-passengers. This does not apply to the transport of a child under the age of 7 if there is an appropriate seat for the child available and a wheel casing or other equipment with the same effect prevent the child's feet from getting into contact with the spokes.

(10) The seats, their back rests and fastenings in and to the vehicles, which are not subject to the provisions of paragraphs (2) and (5), must offer safe support and resist any strain occurring during operation. Collapsible seats and backrests behind which there are more seats and which are not separated from other seats by a partition towards the rear, must automatically lock in the normal driving position or position of use. The release system must be easily accessible from the rear seat and be easy to operate from outside when the door is open. Back rests must be in such a condition that they do not cause possible injuries for the passengers.

(11) In deviation from paragraphs (2) through (5), the provisions stated in the annex to this provision apply to anchoring devices of safety belts and safety belts for three-wheel or four-wheel motor vehicles pursuant to section 30a, paragraph (3).

(12) Child restraints integrated into motor vehicles must comply with the provisions stipulated in the annex to this provision.

SECTION 35B. EQUIPMENT FOR THE SAFE OPERATION OF VEHICLES

(1) The equipment for the operation of vehicles must be in a condition to be easily and safely handled.

(2) A sufficient field of vision must be guaranteed for the driver under all operational and weather conditions.

SECTION 35C. HEATING AND VENTILATION
Closed driver's compartments in motor vehicles with a maximum design speed exceeding 25 km per hour must be equipped in such a way that they may be sufficiently heated and ventilated.

SECTION 35D. DEVICES AT VEHICLES FOR MOUNTING AND DESCENDING
The vehicles must be constructed in such a manner that mounting and descending is safe.

SECTION 35E. DOORS

(1) Doors and door locks must be designed in such a manner that disturbing noise is avoided when the door is closed.

(2) Door locks must be constructed in such a way that an unintentional opening of the doors is not likely.

(3) The hinges of hinged doors, -with the exception of folding doors-, at the longitudinal sides of motor vehicles with a maximum design speed of more than 25 km per hour must be attached to the doors at the side closest to the driving direction. In case of double doors this applies to the door wing which is first opened; the other wing must have its own locking mechanism. Doors must be constructed in such a way that any adult person may open them in case of danger.

(4) Doors must be kept closed while driving.

SECTION 35F. EMERGENCY EXITS IN MOTORBUSES
Emergency exits in motorbuses must be clearly identified on the inside and outside of the vehicle. Emergency exits and manually- or power-operated service doors must be constructed in such a way that, in case of an emergency, they can be opened at all times when the motorbus is standing or driving at a maximum speed of 5 km/h; accessibility during operation of the vehicles must be ensured. Special mechanisms to open emergency exits and service doors in case of an emergency (emergency operation devices) must be marked as such and ready for use at all times; at or near such devices clear instructions for use shall be attached.

SECTION 35G. FIRE EXTINGUISHERS IN MOTORBUSES

(1) Motorbuses will carry along at least one fire extinguisher, double deck vehicles at least two fire extinguishers with a capacity of 6 kg each in an operational condition. Permitted are only fire extinguishers that are officially licensed for the following fire ratings:

A: Combustible solid material (forming flames and glowing fire).

B: Combustible liquid material (forming flames).

C: Combustible gaseous material (forming flames).

(2) One fire extinguisher shall be located in the direct vicinity of the driver's seat; in double deck vehicles, the second fire extinguisher shall be placed on the upper passenger level.

(3) The operating personnel must be familiar with the operation of the fire extinguisher; in addition to the driver, the holder of the vehicle is also responsible for this.

(4) The holders of the vehicle must have the fire extinguishers examined for their usability by an expert at least once every 12 months. When examining, refilling, and repairing the fire extinguishers, the capacity values and technical characteristics of the specific type must continue to be guaranteed. A sign attached to the fire extinguisher must indicate the name of the examiner and the day of examination.

SECTION 35H. FIRST-AID MATERIAL IN MOTOR VEHICLES

(1) First-aid kits and the first-aid material contained in them that are in compliance with the January 1998 issue of standard sheet DIN 13 164, must be carried along in motorbuses, that is, at least—

1. One first-aid kit in motorbuses with no more than 22 passenger seats.

2. Two first-aid kits in other motorbuses.

(2) First-aid kits in motorbuses must be located at the places provided for them; these places shall be clearly marked.

(3) In motor vehicles other than those mentioned in paragraph (1) with a maximum speed exceeding 6 km per hour due to their construction, except invalid chairs, motorcycles, tractors, or working machines used in agriculture or forestry as well as other tractors or working machines, if they have one axle, first-aid material shall be carried along that, with regard to type, quantity, and condition, is at least in compliance with the January 1998 issue of standard sheet DIN 13 164. The first-aid material shall be kept in a case of such material as to sufficiently protect its contents from dust and moisture as well as from gasoline and lubricants.

(4) Notwithstanding paragraphs (1) and (3), other first-aid material may also be carried along, that, due to its identical type, quantity, and condition, does at least serve the purpose of rendering first aid.

SECTION 35I. AISLES, ARRANGEMENT OF PASSENGER SEATS, AND TRANSPORTATION OF PASSENGERS IN MOTORBUSES

(1) In motorbuses, passenger seats shall be arranged in such a way that the longitudinal aisle is not occupied by seats. Furthermore, the arrangement of passenger seats and their minimum dimensions as well as the minimum dimensions of areas accessible for passengers shall be in accordance with annex X.

(2) In motorbuses, it is not allowed to transport passengers in a lying position. This does not apply to children in baby carriages.

SECTION 35J. FIRE RESISTANCE OF MATERIALS USED FOR THE INTERIOR TRIM OF CERTAIN MOTORBUSES

The interior trim of motorbuses that are neither designed for standing room for passengers nor intended to be operated as municipal buses and that are equipped with more than 22 passenger seats must be in compliance with the provisions on fire resistance stated in the annex to this provision.

SECTION 36. TIRES AND TREADS

(1) The size and design of tires for vehicles must be appropriate for the operating conditions, especially with regard to load and maximum speed of vehicles determined by their construction. Vehicles that are used in agriculture and forestry or road maintenance service and are equipped with tires that allow only for a low maximum speed must be marked pursuant to section 58. When using M&S tires (winter tires), the requirement concerning the speed is also met if the permissible maximum speed for M&S tires is below the maximum design speed of the vehicle, however, the

1. Maximum speed permitted for M&S tires is clearly indicated in the driver's field of vision.

2. Maximum speed permitted for M&S tires is not exceeded when operating the vehicle.

Tires or other treads must not show any irregularity on their surface which might damage a solid road; the edges of metal tires must be rounded off. Nails must be embedded.

(1a) Pneumatic tires referred to by the provisions stated in the annex to this provision must be in compliance with such provisions.

(2) Unless other tires are permitted as indicated below, the wheels of motor vehicles and trailers must be equipped with pneumatic tires. Pneumatic tires are those tires which function primarily by an overpressure of enclosed air. Pneumatic tires of motor vehicles and trailers must be provided with profile grooves or recesses to their full perimeter and full width of the treads. The main grooves must be at least 1.6 mm deep at the full perimeter; the main grooves are the wide tread grooves in the center area of the tread, which covers approximately 3/4 of the tread width. For bicycles with auxiliary motor, small motorcycles and light motorcycles, however, a tread depth of at least 1 mm is sufficient.

(2a) On motor vehicles, except passenger cars, with a permitted total weight of more than 3.5 metric tons and a maximum design speed exceeding 40 km/h and on their trailers, the wheels on a single axle may be equipped either with diagonal tires or with radial tires only. Passenger cars as well as other motor vehicles with a permitted total weight below 3.5 metric tons and with a maximum design speed of more than 40 km/h and their trailers may be equipped either with diagonal tires or with radial tires only; in case of vehicle trains this applies only to the respective individual vehicle.

Sentences 1 and 2 do not apply to trailers which, pursuant to section 58, are marked for a maximum speed of 25 km/h and are attached to a motor vehicle which is not driven in excess of 25 km/h (operational provision). Sentence 2 does not apply to motorcycles, except light motorcycles, small motorbikes and power-assisted bicycles.

(2b) Persons manufacturing and re-treading tires shall mark pneumatic tires for vehicles with a maximum design speed of more than 40 km/h with their factory or trade mark as well as details on the size of tires, type, load bearing capacity, speed category, date of manufacture, and/or re-treading. The method used to make these indications will be published in the Traffic Gazette.

(3) Rubber tires may be used instead of pneumatic tires for vehicles with a speed not exceeding 25 km per hour (for vehicles that do not have a flexible drive axle, however, only with maximum speeds not exceeding 16 km per hour), which must conform with the following requirements: on both sides of the tire there must be a protruding ledge 10 mm wide and clearly visible, indicating the limit to which the tire can be worn off; this ledge may be interrupted only by the inscription of the name of the manufacturer, the size and similar data and by recesses in the tire. At the limit (where the tire is worn off), it must still have a minimum work capacity of 60 J. The maximum static pressure of the surface of the tire must not exceed 0.8 N/mm^2. Between the ledge and the steel ribbon the tire must show the inscription “60 J” on both sides. The work capacity of 60 J will still exist if the impression on the rubber tire of one wheel with a single or double tire, at an additional load of 1000 kg on the tires, which are already loaded with the maximum permissible static load, increases by a minimum amount which is computed by means of the following formula:

$$f = \frac{6000}{P + 500} \quad ;$$

The letter ‘f’ denotes the minimum amount of the impression increase in millimeters and P denotes the maximum permissible static load in kilograms. The maximum permissible static load shall not exceed 100 N/mm of the basic surface width of the tire; however, it may be 125 N/mm if the vehicles have a maximum speed not exceeding 8 km per hour and are marked by corresponding speed signs (sec 58). The surface pressure shall be determined under the maximum permissible static load without taking into consideration recesses in the tire tread. The provisions concerning the work capacity do not apply to rubber tires for electrical carts with flexible drive axles and a maximum design speed of up to 20 km per hour or to their trailers.

(4) Metal tires with a load pressure up to 125 N/mm of tire width may be used for—

1. Tractors used for agriculture and forestry, with a total permissible weight not exceeding 4 metric tons and a maximum design speed not exceeding 8 km per hour.

2. Working machines and high-lift trucks (sec 3, para (2), sent 1, no. 1, letter a, of the Vehicle Licensing Ordinance), with a maximum design speed of 8 km per hour and by vehicles which are attached to them.

3. The following vehicles attached to tractors that do not exceed a speed of 8 km per hour (operation directions):

a) Furniture vans.

b) House trailers and exhibition trailers provided that they will be moved only between the fair ground or parking place and the next railway station or between the fair ground and a parking place located nearby.

c) Trailers to accommodate construction workers if they are transported from or to a building site and if these trailers are not used at the same time mainly for the transportation of goods.

d) Movable machines and instruments used for road construction and road maintenance if transported to and from the building site.

e) Agricultural or forestry work machines and for vehicles which are used for the transport of agricultural and forestry commodities, work machines or products.

(5) In case of tracked vehicles (sec 34b, para (1), sent 1), the chain or belt (track) may not cause damaging scratches on the road. The edges of the bottom plates and their ribs must be rounded. The rounding of the metal bottom plates and ribs on the longitudinal sides of the tracks must have a minimum radius of 60 mm. The pressure on the bearing surface of the tracks by a spring-mounted track wheel on the level road shall not exceed 1.5 N/mm^2 , in case of vehicles with track-wheels without spring-suspension and tracks completely consisting of rubber-band on the outside it may not exceed 0.8 N/mm^2. The bearing surface is only that part of the track actually in contact with the level road. With regard to the construction of

the treads and the spring suspension, the following limits are set for tracked vehicles and vehicle trains that include tracked vehicles:

1. The general speed limit will be 8 km per hour.

2. If the track wheels of the tracks are provided with rubber tires that are 40 mm thick or if the bearing surface of the tracks is provided with a rubber lining, the speed limit will be 16 km per hour,

3. If the track wheels have no spring-suspension and the outside of the tracks completely consists of rubber bands, the speed limit will be 30 km/h.

If the treads of the tracks are provided with a rubber lining or the tracks completely consist of rubber band and the track wheels have rubber tires that are 40 mm thick or a special spring-suspension, the speed will be unlimited.

SECTION 36A. WHEEL COVERINGS, SPARE WHEELS

(1) The wheels of motor vehicles and their trailers must be provided with sufficiently effective covers (fenders, mudguards, or wheel housings).

(2) Paragraph (1) does not apply to—

1. Motor vehicles with a maximum design speed not exceeding 25 km per hour.

2. The rear wheels of tractors drawing a semi trailer whose body covers the wheels and does not permit the attachment of a complete wheel covering; in this case coverings before and behind the wheel are sufficient if they reach the upper edge of the wheel.

3. Vehicles with metal rimmed wheels.

4. Trailers to transport railroad cars on the road (wagon-carrying trailers).

5. Trailers which are marked as provided in section 58 for a maximum speed not exceeding 25 km per hour.

6. Agricultural or forestry working equipment.

7. Carts drawn by agricultural and forestry one-axle tractors or working machines (sec 3, para (2), sent 1, no. 2, letter I, of the Vehicle Licensing Ordinance).

8. The front wheels of trailers with several axles for the transportation of long-cut timber.

(3) For spare wheels carried along on the outside of the vehicle, mountings must be available that hold the wheels safely and resist the regular working strain. The spare wheels must be protected against loss by two independent safety devices. The devices must be constructed in such a way that one remains effective if the other one fails in particular due to breakage, failure, or improper handling.

SECTION 37. WHEEL SLIDE CONTROL AND SNOW CHAINS

(1) Devices to increase the traction of wheels on unpaved roads (so-called grousers and similar devices) must be removed when driving on paved roads, except when covered with protection tires, when the grousers are turned to the inside, or when other means are used to protect the road from being damaged. Sentence 1 does not apply if slide control devices are used on paved roads that are constructed and attached in such a way that they do not damage the road; the use may be limited to certain types of road paving and specific times stated in the type approval (sec 22a).

(2) Devices enabling safe driving on a road which is covered with snow or ice (snow chains) must be designed and attached in a way that they will not damage the road. Metal snow chains may only be used on elastic tires (sec 36, paras (2) and (3)). Snow chains must cover the tread of the tire in such a manner that one part of the chain always touches the level road regardless of the position of the wheel. Those parts of the chains touching the road must have short links with partitions showing approximately three to four times the thickness of the wire. Snow chains must be easy to put on and take off and must have a simple tension adjustment.

SECTION 38. STEERING MECHANISM

(1) The steering mechanism must guarantee an easy and safe steering of the vehicle; if necessary, the vehicle shall be equipped with a power-assisted steering system. If the power-assisted steering fails, the vehicle must still be steerable.

(2) Passenger cars, motorbuses, trucks, semi-trailers with at least four wheels and a maximum design speed of 25 km/h, and their trailers must comply with the provisions stated in the annex to this provision.

(3) In deviation from paragraph (1), wheeled tractors used in agriculture and forestry with a maximum design speed of 40 km/h may comply with the provisions stated in the annex to this provision. Tractors used in agriculture and forestry with a maximum design speed of more than 40 km/h may, in deviation from paragraph (1), comply with the provisions on steering systems applicable to trucks pursuant to paragraph (2).

(4) Self-propelled work machines and high-lift trucks with a maximum design speed not exceeding 40 km/h may, in deviation from paragraph (1), either comply with the provisions applicable to trucks pursuant to paragraph (2) or to tractors used in agriculture and forestry pursuant to paragraph (3), sentence 1, depending on the construction characteristics of their chassis. Self-propelled work machines and high-lift trucks with a maximum design speed of more than 40 km/h may, in deviation from paragraph (1), comply with the provisions applied to trucks pursuant to paragraph (2).

SECTION 38A. DEVICES TO SECURE MOTOR VEHICLES AGAINST UNAUTHORIZED USE

(1) Passenger cars as well as trucks, tractors and semi-trailers with a permissible total weight not exceeding 3.5 metric tons - with the exception of tractors used for agriculture and forestry and three-wheel motor vehicles - must be equipped with a security device against unauthorized use; passenger cars must in addition be equipped with an immobilizer. The device against unauthorized use and the immobilizer must be in accordance with the provisions stipulated in the annex to this provision.

(2) Motorcycles and three-wheel motor vehicles with a cubic capacity of more than 50 cm^3 or a maximum design speed of more than 45 km/h, except for small motor cycles and power-assisted bicycles (sec 3, para (2), sent 1, no. 1, letter d, of the Vehicle Licensing Ordinance) must be equipped with a security device against unauthorized use in compliance with the provisions stipulated in the annex to this provision.

(3) Security devices against unauthorized use and immobilizers in vehicles for which they are not required must comply with the above provisions.

SECTION 38B. THEFT ALARM DEVICES

Vehicle theft alarm devices installed in passenger cars, tractors and semi-trailers with a permissible total weight not exceeding 2.0 metric tons must comply with the provisions stipulated in the annex to this provision. Vehicle theft alarm devices in other motor vehicles must correspondingly be in compliance with the above regulations.

SECTION 39. REVERSE GEAR

Motor vehicles, except for one-axle tractors or working machines with an authorized total weight not exceeding 400 kg and motorcycles with or without side-car, must be operable in reverse gear from the driver's seat.

SECTION 39A. OPERATION DEVICES, CONTROL LAMPS AND INDICATORS

(1) The operation devices, control lamps and indicators installed in passenger cars and motorbuses as well as trucks, tractors and semi-trailers - except for tractors used in agriculture or forestry - must have identifications complying with the provisions stipulated in the annex to this provision.

(2) Operating devices, control lamps and indicators installed in motor vehicles pursuant to section 30a, paragraph (3), must have an identification in accordance with the provisions stipulated in the annex to this provision.

(3) Tractors used in agriculture or forestry must have operation devices that are installed, positioned, and identified and function in compliance with the provisions stipulated in the annex to this provision.

SECTION 40. WINDSHIELD, WINDSHIELD WIPERS, WINDSHIELD WASHERS, WINDSHIELD DEFROSTING AND DRYING SYSTEMS

(1) All panes - except for mirrors as well as cover plates on lighting systems and instruments - must consist of safety glass. Safety glass will be glass or glass-like material with fragments that do not cause severe injuries. Panes made of safety glass that are important to the driver for his vision must be clear, light-transmitting, and free from distortion.

(2) Windshields must be equipped with automatic windshield wipers. The effective range of the wipers must be large enough to guarantee sufficient vision for the driver of the vehicle.

(3) Three-wheel small motorcycles and three-wheel or four-wheel motor vehicles with driver's cabin pursuant to section 30a, paragraph (3), must be equipped with windshields, windshield wipers, windshield washers, defrosting, and drying systems that are in compliance with the provisions stipulated in the annex to this provision.

SECTION 41. BRAKES AND WHEEL CHOCKS

(1) Motor vehicles must have two separate brake systems or a brake system with two separate operating devices so that failure of one brake will not affect the other. The separate operating devices must work by separate means of transmission and have an effect upon separate brake surfaces which, however, may lie in or on the same brake drum. If the brakes apply to more than two wheels, the same brake surfaces, and (either partly or totally) the same mechanical transmissions may be used; the latter must be constructed in such a way that, in case of rupture of one part, at least two wheels are braked that are not on the same side. All brake surfaces must be active on parts that are automatically connected with the wheels and cannot be disengaged. One part of the braking surfaces must be directly active on the wheels or on elements that are connected with the wheels without an interconnection of chains or parts of the transmission. This does not apply if the transmission parts (not chains) are constructed in such a way that their failure is not expected and that every affected wheel has its own braking surface. The brakes must be easily adjustable or must have an automatic adjusting device.

(1a) Paragraph (1), sentences 2 through 6, do not apply to brake systems of motor vehicles where the effect of the brake is partially or entirely produced by the difference in pressure in the hydrostatic system (hydrostatic break effect).

(2) For one-axle tractors or working machines, one brake system (service brake) is sufficient, which must be constructed in such a way that, in case of rupture of a part of the brake system, at least one wheel may be braked. If the authorized total weight is not more than 250 kg and pedestrians guide the vehicle by handlebars, no brake system is required; if such vehicles are connected by an additional axle and are operated from the seat, one brake in accordance with section 65 attached to the tractor or working machine or to the one-axle trailer will suffice unless the maximum design speed of the vehicle, exceeds 20 km per hour.

(3) For tracked vehicles where only the two drive wheels of the tracks are braked, it is permitted to use the same braking surface for the service brake and the blocking brake if at least 70 percent of the total weight of the vehicle rests on the tracks and the brakes are constructed in such a way that the condition of the brake lining can be easily checked from outside. Also, the same brake cams, camshafts with levers, or similar transmission parts may be used for both brakes.

(4) Motor vehicles - except motorcycles - must achieve a total deceleration of 5 m/s^2 by applying one brake (the service brake); for motor vehicles with a maximum design speed not exceeding 25 km per hour a total deceleration of 3.5 m/s^2 is sufficient.

(4a) For motor vehicles - with the exception of motor vehicles pursuant to section 30a, paragraph (3) - the braking system must be designed in such a way that in case of partial failure at least 44 percent of the brake effect prescribed in paragraph (4) can still be reached with the remaining part of the brake system which is still intact or with the other braking system of the motor vehicle pursuant to paragraph (1), sentence 1, without the motor vehicle leaving the track.

(5) For motor vehicles - except for motorcycles - the operating mechanism of one of the two brake systems must be lockable; for invalid chairs and vehicles with the characteristics of invalid chairs whose speed exceeds 30 km per hour, the service brake instead of the other brake may be lockable. A locked brake must prevent the vehicle from rolling down the steepest slope on which the vehicle can operate, only by mechanical means and without making use of the braking effect of the motor. The parking brake must achieve an average deceleration of at least 1.5 m/s^2.

(6) (Rescinded)

(7) For such motor vehicles which are operated by stored electrical energy, one of the two brake systems may be a dynamic or short circuit brake; in this case paragraph (1), sentence 2, does not apply.

(8) Except for tracked vehicles, the service foot brakes of tractors which are constructed as single wheel brakes to facilitate the steering, must be coupled on public roads in such a way that an equal braking effect is guaranteed, unless they may be operated jointly by a special brake lever. It must be possible to compensate the unequal wear and tear of the brakes by means of an easily operated wear adjustment device which also can be automatic.

(9) Trailers with two or more axles, except for two-axle trailers with an axle distance of less than 1.0 m, must have an appropriate, easily adjustable or automatically adjusting braking system; the system must effect an average deceleration of at least 5.0 m/s^2 - in case of semi-trailers at least 4.5 m/s^2. For trailers of motor vehicles with a speed not exceeding 25 km per hour (operation regulation) an independent average deceleration of 3.5 m/s^2 is sufficient if the trailers are marked for a maximum speed of not more than 25 km per hour (sec 58). It must be possible to lock the brakes. Only by mechanical means the brake must prevent the fully loaded trailer from rolling down in case of an ascending gradient of 18% or a descending gradient of 18% on a dry road. The service brake systems of the motor vehicle and trailer must be operable from the driver's seat with one operating mechanism in steps, or the service brakes for the trailer must work automatically; the brake system of the trailer must automatically stop the trailer even on a 18% ascending or descending slope if it is detached from the drawing vehicle. Trailers which are attached to vehicles with a maximum design speed of more than 25 km per hour must be equipped with a braking system which will affect all wheels; this does not apply to trailers marked for a maximum speed of not more than 25 km per hour pursuant to section 58 drawn by vehicles which are operated at a maximum speed not exceeding 25 km/h.

(10) Overrun brakes will be authorized only for trailers with a total permissible weight of—

1. 8 metric tons and a maximum design speed not exceeding 25 km per hour.

2. 8 metric tons and a maximum design speed not exceeding 40 km per hour, if the brake affects all wheels.

3. 3.5 metric tons if the brake affects all wheels.

Overrun brakes are not allowed for semi-trailers. In a train of vehicles, only one trailer may be equipped with an overrun brake; however, two trailers with overrun brakes drawn by a tractor are authorized if—

1. Both trailers are equipped with speed signs pursuant to section 58 for a maximum speed of 25 km/h.

2. The train of vehicles is operated with a maximum speed not exceeding 25 km/h.

3. The drawing of more than one trailer is not prohibited by other regulations.

(11) A separate brake for one-axle trailers and double-axle trailers with an axle distance of less than 1.0 m is not required, if the train achieves the deceleration prescribed for the drawing vehicle, and the axle load of the trailer does not exceed half of the net weight of the drawing vehicle, or does not exceed 0.75 metric tons. If, however, the maximum design speed of such trailers does not exceed 30 km/h, the axle load may, under the conditions stipulated in sentence 1, exceed 0.75 metric tons, however, not be more than 3.0 metric tons. If trailers pursuant to sentence 1 must be equipped with their own brake system, the provisions of paragraph (9) apply accordingly; in case of semi trailers the effect of the service brake must correspond to that portion of the authorized total weight of the semi trailer which is carried by the axle or the axle group (sec 34, para (1)).

(12) The prescribed deceleration must be achieved on a level, dry road, with a normal effort, the vehicle being fully loaded, with warm brake drums, and ,except for the brake prescribed in paragraph (5), also at the maximum speed without the vehicle swerving to either side. The deceleration prescribed in paragraphs (4), (6), and (7) must also be achieved if trailers are attached to the vehicle. The average total deceleration is computed either—

1. Pursuant to part 1.1.2 of annex II of Council Directive 71/320/EEC of 26 June 1971 on the approximation of the laws of the Member States relating to the braking devices of certain categories of motor vehicles and of their trailers (OJ L 202, 6.9.1971, p. 37), last amended by directive 2006/96/EC (OJ L 363, 20.12.2006, p. 81), or

2. From the speed v_1 and the stopping distance s_1, with v_1 being the speed of the vehicle when the brakes are applied, after a reaction time of 0.6 seconds at a maximum, and s_1 being the distance covered by the vehicle from the speed v_1 to the point where the vehicle stops.

The procedure prescribed in sentences 1 through 3 may be disregarded, especially in the case of inspections according to section 29 if the condition and the performance of the braking system can be checked by another method. In the case of inspections of vehicles which will be registered for the first time, the deceleration must be higher in order to make up for the usual reduction of the braking performance when the car is operated over a longer period of time; further, a sufficient state of the art continuous performance of the brakes must be guaranteed for longer downhill trips.

(13) The following vehicles are exempted from the above provisions concerning brakes:

1. Tractors used for agriculture or forestry if their total permissible weight does not exceed 4 metric tons and their maximum design speed does not exceed 8 km per hour.

2. Self-propelled working machines and high-lift trucks with a maximum design speed not exceeding 8 km per hour and vehicles attached to them.

3. Vehicles attached to tractors that are operated at a maximum speed of 8 km per hour, such as—

a) Furniture vans.

b) House trailers and exhibition trailers, provided that they will be moved only between the fair ground or parking place and the next railway station or between the fair ground and a parking place located nearby.

c) Trailers for accommodating construction workers if they are transported from or to a building site and if trailers are not at the same time used for the transport of goods.

d) Movable machines and instruments used for road construction and road maintenance if transported to and from the building site.

e) Agricultural or forestry working machines.

f) Vehicles used for the transportation of agricultural and forestry commodities, working instruments or products if the vehicles have metal tires or are marked as provided for in section 58 for a speed not exceeding 8 km per hour.

However, the vehicles must have an adequate braking system that may be easily operated while driving and locked. Agricultural and forestry working machines that are without springs and have a net weight that does not exceed the net weight of the drawing vehicle, or does not exceed 3 metric tons, are not required to have a separate brake.

(14) The following motor vehicles and trailers must be equipped with wheel chocks. Required are at least—

1. One chock for—

a) Motor vehicles - with the exception of tracked vehicles - with an authorized total weight exceeding 4 metric tons.

b) Two-axle trailers - with the exception of semi-trailers and rigid draw-bar trailers (including center-axle trailers) - with an authorized total weight exceeding 750 kg.

2. Two chocks for—

a) Vehicles with three and more axles.

b) Semi trailers.

c) Rigid draw-bar trailers (including center-axle trailers) with an authorized total weight exceeding 750 kg.

The wheel chocks must be safe to use and effective. They must be easily accessible and attached in or to the vehicle with mountings precluding loss or the causing of noise. Hooks or chains may not be used as mountings.

(15) Motorbuses with an authorized total weight exceeding 5.5 metric tons as well as other motor vehicles with an authorized total weight exceeding 9 metric tons must be equipped with a permanent brake in addition to the brakes required according to the aforementioned provisions. Engine brakes or equipment with the same brake performance are considered permanent brakes. As a minimum the permanent brake must have a performance which corresponds to the braking effort when a fully loaded vehicle drives down a slope of 7 percent over a length of 6 km at a speed of 30 km per hour. The service brake of trailers with a permissible total weight of more than 9 metric tons must comply with the requirements stipulated in sentence 3; this applies to semi trailers only if the authorized total weight reduced by the permissible total weight minus weight of the drawing vehicle exceeds 9 metric tons. Sentences 1 through 4 do not apply to—

1. Vehicles with a maximum design speed not exceeding 25 km/h.

2. Vehicles that are marked for a maximum speed of 25 km/h pursuant to section 58 and operated at a maximum speed of 25 km/h.

(16) Pneumatic and hydraulic brakes of motorbuses must be able to brake at least two wheels that are not on the same side in case of leakage at one spot. In case of pneumatic brakes of motorbuses, the excessive decrease of pressure in the compressed air container must be clearly indicated to the driver by a visual or acoustical warning device.

(17) If trailers with a pneumatic brake system are drawn, the supply containers of the trailer must be in a condition to be refilled during the operation of the service brake system (two-line brake system with control by rise of pressure) if the maximum design speed exceeds 25 km per hour.

(18) Notwithstanding paragraphs (1) through (11), paragraph (12), sentences 1, 2, 3, and 5, paragraphs (13) and (15) through (17), passenger cars, motorbuses, trucks, tractors - except tractors used in agriculture and forestry - and semi-trailers with at least four wheels and a maximum design speed exceeding 25 km per hour and their trailers - except trailers pursuant to paragraph (10), sentence 1, numbers 1 and 2, or paragraph (11), sentence 2, dump trucks, high-lift-trucks, electric carts, hydraulic dumpers - must comply with the provisions on braking systems stipulated in the annex to this provision. Other vehicles that, with regard to their construction characteristics of the chassis, are to be considered identical to the aforementioned vehicles must comply with the provisions on braking systems stipulated in the annex to this provision. Spare brake pads for vehicles listed in sentences 1 and 2 with a permissible total weight not exceeding 3.5 metric tons must comply with the provisions in the annex to this provision.

(19) Notwithstanding paragraphs (1) through (11); paragraph (12), sentences 1, 2, 3, and 5; paragraphs (13), (17), and (18); motor vehicles pursuant to section 30a, paragraph (3), must comply with the provisions on brake systems stipulated in the annex to this provision.

(20) Notwithstanding paragraphs (1) through (11); paragraph (12), sentences 1, 2, 3, and 5; paragraph (13), (17), through (19), tractors used in agriculture and forestry with a maximum design speed not exceeding 40 km/h must comply with the provisions on brake systems stipulated in the annex to this provision. Self-propelled work machines and high-lift trucks with a maximum design speed of 40 km/h may comply with the provisions on brake systems pursuant to sentence 1.

SECTION 41A. COMPRESSED GAS SYSTEMS AND PRESSURE TANKS

(1) Motor vehicle types that are equipped with special equipment or components for the use of—

1. Liquefied petroleum gas (LPG), or

2. Compressed natural gas (CNG)

in their motor systems, must be approved regarding the installation of this equipment or components in accordance with the provisions stipulated in the annex to this provision.

(2) Special retrofitting systems for the use of—

1. Liquefied petroleum gas (LPG), or

2. Compressed natural gas (CNG)

in the motor system of a motor vehicle must be approved regarding their design pursuant to the provision stipulated in the annex to this provision.

(3) Special components for the use of—

1. Liquefied petroleum gas (LPG), or

2. Compressed natural gas (CNG)

in the motor system of a motor vehicle must be approved regarding their design pursuant to the provision stipulated in the annex to this provision. In addition, the conditions of the provision stipulated in the annex to this provision must be fulfilled for the assembly.

(4) Manufacturers of components for equipment pursuant to paragraph (1), retrofitting systems pursuant to paragraph (2), or special components pursuant to paragraph (3) must enclose with them the necessary information documents for the

assembly, the safe use during the intended operation time, and the recommended maintenance in accordance with the provisions stipulated in the annex to this provision. If necessary, these documents shall be made available to the persons responsible for the assembly, the operation and the inspections.

(5) Holders whose motor vehicles have been equipped with equipment pursuant to paragraph (2) or (3) shall have a gas system inspection (gas system assembly inspection) performed in accordance with annex XVII after the assembly. Gas system assembly inspections may be performed only by—

1. Competent persons in recognized motor vehicle workshops if the gas system was installed in that particular motor vehicle workshop.

2. Officially recognized experts or examiners for motor vehicle traffic.

3. Inspection engineers within the meaning of annex VIIIb, no. 3.9.

After the gas system assembly inspection, holders of motor vehicles with equipment pursuant to paragraph (3) shall have an expert opinion prepared in accordance with section 21 in order to obtain a new operating permit.

(6) Holders whose motor vehicles are equipped with equipment pursuant to paragraphs (1) through (3) shall have the gas system inspected pursuant to annex XVII each time repair work is performed on the gas system. The same applies if the gas system was damaged by a fire or accident. Inspections of gas systems may be performed only by—

1. Competent persons in motor vehicle workshops recognized for such inspections or by specialists under the supervision of such persons.

2. Officially recognized experts or examiners for motor vehicle traffic.

3. Inspection engineers within the meaning of annex VIIIb, no. 3.9.

(7) Recognition of motor vehicle workshops for performance of gas system assembly inspections pursuant to paragraph (5), of the gas system inspections pursuant to paragraph (6), and of examinations in accordance with annex VIII, number 3.1.1.2, must be in accordance with annex XVIIa. Training of the persons stated in paragraph (5), sentence 2, numbers 2 and 3, as well as paragraph (6), sentence 3, numbers 2 and 3, shall be conducted under application of numbers 2.5, 7.3 and 7.4 of annex XVIIa, and the scope of the first training may correspond to the scope of a repeating training.

(8) Pressure tanks for pneumatic brake systems and accessory generators must comply with the provisions stipulated in the annex to this provision. They may also be made from materials other than steel and aluminum if they comply with the provisions stipulated in the annex to this provision and the same safety and performance capability can be proven for them. Pressure tanks shall be marked in accordance with the annex.

SECTION 41B. ANTI-LOCK SYSTEM

(1) An anti-lock device is the part of a service brake system that automatically controls the slipping in turning direction of the wheel at one or more wheels of the vehicle when brakes are applied.

(2) The following vehicles with a maximum design speed of more than 60 km/h must be equipped with an anti-lock system:

1. Trucks and tractors for semi-trailers with an authorized total weight of more than 3.5 metric tons.

2. Trailers with an authorized total weight of more than 3.5 metric tons; this applies to semi-trailers only if the authorized total weight reduced by the net weight of the semi-trailer (*Aufliegelast*) is higher than 3.5 metric tons.

3. Motorbuses.

4. Tractors with an authorized total weight of more than 3.5 t.

Other vehicles that can be considered identical to those mentioned in numbers 1 through 4 with regard to the construction characteristics of their chassis shall also be equipped with an anti-lock system.

(3) Vehicles with an anti-lock system shall comply with the provisions in the annex to this provision.

(4) Trailers with anti-lock system that do not have an automatic load-dependent brake power control system, may only be attached to motor vehicles that guarantee the effect of the automatic anti-lock system on the trailer.

(5) Paragraph (2) does not apply to trailers with overrun brake and motor vehicles with more than four axles.

SECTION 42. TOWABLE MASS BEHIND MOTOR VEHICLES AND UNLADEN WEIGHT

(1) The drawn towable mass may not exceed—

1. In case of passenger cars (except those pursuant to no. 2) and trucks (except those pursuant to no. 3), the permissible total weight,

2. In case of passenger cars that are all-terrain vehicles pursuant to the definition in annex II of Directive 70/156/EEC, 1.5 times the permissible total weight,

3. In case of trucks as part of vehicle trains with a continuous brake system, 1.5 times the permissible total weight,

of the towing vehicle, nor may the drawn towable mass exceed the value indicated by the manufacturer of the towing vehicle or officially determined as authorized. In case of passenger cars pursuant to number 1 or 2, the actual total weight of the trailer (axle load plus vertical load) may in no case exceed 3,500 kg. In case of motor vehicles pursuant to section 30a, paragraph (3), the towable mass may only be 50 percent of the motor vehicle's unladen weight.

(2) Trailers without a suitable separate brake may be drawn by motorcycles and passenger cars only if the towing vehicle has a brake acting on all wheels and the trailer has only one axle; motorcycles are considered vehicles with a brake acting on all wheels although the front and rear wheel brake are operated by separate devices, however, this only applies to motorcycles with a sidecar if the wheel of the sidecar also has a brake. If one-axle trailers without an adequate separate brake are drawn, the maximum towable mass may be half of the unladen weight of the towing vehicle increased by 75 kg, but not more than 750 kg.

(2a) Paragraphs (1) and (2) do not apply to the towing of nonoperating vehicles.

(3) The unladen weight is the weight of the vehicle ready for operation without exchangeable cargo carriers (containers designed and suitable to accommodate loads and to be used on or at various carrier vehicles, such as containers, exchangeable containers), but with built-in fuel tanks filled up to 90%, and systems for other fluids filled 100% (except systems for used water), including the weight of all equipment carried along during operation (e.g. spare wheels and tires, spare parts, tools, lifting jack, fire extinguisher, mountable walls, tarpaulin framings with stirrups, laths and bars, tarpaulins, non-skid devices, ballast weights), in case of motor vehicles other than those pursuant to section 30a, paragraph (3), plus 75 kg as driver's weight. Exchangeable cargo carriers which connect vehicles or convey tensile force, are considered to be parts of the vehicle.

SECTION 43. DEVICES TO CONNECT VEHICLES

(1) Devices to connect vehicles must be constructed and fastened in such a way that state of the art safety is ensured even during operation of the coupling. The drawbar of trailers with several axles must be clear above the road surface. The drawbar eye of these trailers must be adjustable on the level of the coupling mouth; the same applies to other types of couplings. Sentences 2 and 3 do not apply to trailers drawn by electric carts with a maximum speed not exceeding 25 km per hour, due to their construction, if the authorized total weight of the trailer is not more than 2 metric tons.

(2) Multi-track motor vehicles with more than one axle must be equipped in the front, passenger cars - with the exception of those that are not authorized to draw a towable mass according to the operating permit - also in the rear, with a sufficiently dimensioned and easily accessible device to fasten a tow-rod or a towing rope. Self-propelled work machines and high-lift trucks may have such device in the rear.

(3) When using tow-rods or towing ropes, the clear distance between the towing vehicle and the towed vehicle may not exceed 5 meters. Tow-rods and towing ropes shall be made sufficiently recognizable, e.g. by a red rag.

(4) Trailer couplings must work automatically. However, nonautomatic trailer couplings are permitted—

1. For tractors and self-propelled work machines and high-lift trucks if the driver can observe the coupling operation from his seat.

2. For motorcycles and passenger cars.

3. For trailers drawn by tractors used in agriculture and forestry.

4. To connect other motor vehicles with one-axle trailers or two-axle trailers with an axle distance of less than 1.0 m, with an authorized total weight not exceeding 3.5 metric tons.

In all cases, it should be possible to connect vehicles for a safe operation easily and without risk.

(5) Devices to connect vehicles to two-wheel or three-wheel motor vehicles pursuant to section 30a, paragraph (3), and their fastening to those motor vehicles must comply with the provisions stipulated in the annex to this provision.

SECTION 44. SUPPORTING DEVICE AND VERTICAL LOAD

(1) A supporting device must be available for semi-trailers or should be attachable. If semi-trailers are equipped in such a way that the connection of the coupling devices, electrical systems, and brake systems can be effected automatically, the trailers must have a supporting device that retracts from the ground automatically after the trailer has been coupled up.

(2) Rigid drawbar trailers (including center axle trailers) must have a height-adjustable supporting device if the equally distributed supported load is more than 50 kg. However, this does not apply to rigid drawbar trailers drawn by motor vehicles with a power lift suited to lift the drawbar. Supporting devices must by secured against loss.

(3) For rigid drawbar trailers (including center axle trailers) with a permissible total weight not exceeding 3.5 metric tons, the minimum vertical load on the towing vehicle shall not be less than 4 percent of the actual total weight of the trailer; however, it does not have to be over 25 kg. The manufacturer shall determine the technically permissible vertical load of the towing vehicle; with the exception of motorcycles, it may not be less than 25 kg. In case of rigid drawbar trailers (including center-axle trailers) with a total permissible weight of more than 3.5 metric tons, the minimum vertical load on the towing vehicle may not be less than 4 percent of the actual total weight of the trailer, however, it does not have to be over 500 kg. The maximum permissible vertical load for these trailers - except rigid drawbar trailers (including center-axle trailers) which are marked for a maximum speed of 40 km/h (sec 58) and work machines used in agriculture and forestry - may be at a maximum 15 percent of the actual total weight of the rigid drawbar trailer (including center-axle trailer), but not more than 2.00 metric tons. For all rigid drawbar trailers (including center-axle trailers) neither the vertical load for the trailer coupling or the towing device nor the vertical load indicated by the manufacturer for the towing vehicle may be exceeded.

SECTION 45. FUEL TANKS

(1) Fuel tanks must be corrosion-proof. They must show no leaks under double excess operating pressure or at least at an excess pressure of 0.3 bar. Soft-soldered containers must still hold together after the solder is melted. Any excess pressure or pressure exceeding the operation pressure must be automatically released by adequate devices (such as openings and safety valves). Vent caps shall be secured against passing of flames. Parts affixed to the container by soft-soldering must, in addition, be riveted or screw-fastened or must be safely attached in any other manner. Fuel must not leak from the filling plug or the overpressure release devices even if the car is in an inclined position, driving in curves or over bumps.

(2) Fuel tanks for gasoline fuel may not be located directly behind the front cover of the vehicle; they must be separated from the motor in such a way to avoid ignition of the fuel in case of an accident. This does not apply to motorcycles and tractors with an open driver's seat.

(3) In motorbuses, fuel tanks may not be located in the driver's or passengers' compartment. They must be placed in such a way that the exits are not directly endangered in case of fire. In motorbuses, tanks for gasoline fuel must be located in the rear or at the sides under the floor at a distance of at least 500 mm from the doors. If this is not feasible, one part of the tank, except the bottom, must be shielded by a sheet metal cover.

(4) For fuel tanks and their installation as well as the installation of fuel supply lines in motor vehicles pursuant to section 30a, paragraph (3), the provisions stipulated in the annex to this provision shall apply.

SECTION 46. FUEL LINES

(1) Fuel lines shall be constructed in such a way that distortions of the vehicle and motion of its engine do not have a negative effect on the durability of the fuel lines.

(2) Pipe connections shall be screw-fastened without soldering, or the pipes must be joined by hard-soldered nipples. The fuel line will be equipped with a shutoff device which may be easily operated from the driver's seat while the vehicle is

operated; it is not required if the fuel conveying device interrupts the fuel supply to the carburetor or to the injection pump when the motor stops or if the vehicle is operated with diesel fuel only. As fuel lines seamless flexible metal tubes or other fuel-proof tubes of noncombustible material may be installed; they must be protected against mechanical damage.

(3) The fuel lines, the carburetor, and all other fuel conveying parts shall be protected against heat which might influence the operation of the vehicle and they will be arranged in such a way that dripping or evaporating fuel does neither collect nor ignite at hot parts or electrical apparatus.

(4) Fuel lines may not be installed in the driver's or passengers' compartments of motorbuses. The fuel for these vehicles may not be conveyed by gravity.

SECTION 47. EXHAUST FUMES

(1) Motor vehicles with positive-ignition or compression-ignition with at least four wheels, a permissible total weight of at least 400 kg and a maximum speed of at least 50 km/h due to their construction - except tractors and work machines used in agriculture or forestry and other work machines and high-lift trucks - which are subject to Council Directive 70/220/EEC of 20 March 1970 on the approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles (OJ L 76, 6.4.1970, p. 1), last amended by directive 2006/96/EC (OJ L 363,20.12.2006, p. 81), shall, with regard to their exhaust emissions and the requirements concerning fuel types, comply with the provisions stipulated in this directive.

(1a) Motor vehicles as defined in Article 2, paragraph 1, of Regulation (EC) No 715/2007 of the European Parliament and of the Council of 20 June 2007 on the type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information (OJ L 171, 29.6.2007, p.1) must comply with this Ordinance or the Commission Regulation (EC) No 692/2008 of 18 July 2008 implementing and amending Regulation (EC) No 715/2007 of the European Parliament and of the Council of 20 June 2007 on the type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information (OJ L 199, 28.7.2008, p.1), amended by the provisions stated in the annex to this provision with respect to emissions in the cases of section 13 of the EC Regulation on Vehicle Approval or of section 21.

(2) Motor vehicles with compression-ignition engine with or without mounting with at least four wheels and a maximum design speed of 25 km/h - with the exception of work machines and tractors used in agriculture and other work machines and high-lift trucks – that are subject to Council Directive 72/306/EEC of 2 August 1972 on the approximation of the laws of the Member States in relation to measures to be taken against the emission of pollutants from diesel engines used in vehicles (OJ L 190, 20.8.1972, p. 1), last amended by Directive 2005/21/EC (OJ L 61, 8.3.2005, p. 25), must comply with this directive with regard to the emission of pollutants. Motor vehicles with compression-ignition engines to which annex XVI refers, shall, with regard to the emission of pollutants (solid particles - diesel fumes) in the exhaust gas, comply with annex XVI or Directive 72/306/EEC.

(3) Passenger cars and recreational vehicles with positive-ignition or compression-ignition engines complying with the provisions of—

1. Annex XXIII, or

2. Annex III A of Directive 70/220/EEC in the version of Council Directive 88/76/EEC (OJ L 36, 9.2.1988, p. 1) or subsequent amendments to this annex in Council Directive 88/463/EEC (OJ L 214, 6.8.1988, p. 1), corrected by correction of Directive 88/436/EEC (OJ L 303, 8.11.1988, p. 36) or of Directive 89/491/EEC (OJ L 238, 15.8.1989, p. 43), or

3. Directive 70/220/EEC in the version of Directive 91/441/EEC (OJ L 242, 30.8.1991, p. 1) - with the exception of vehicles to which the temporary provisions of annex I, no. 8.1 or 8.3 apply - , or

4. Directive 70/220/EEC in the version of Directive 93/59/EEC (OJ L 186, 28.7.1993, p. 21) - with the exception of vehicles to which the less strict limit values of category II or III of annex I in numbers 5.3.1.4 and 7.1.1.1 or the temporary provisions of annex I no. 8.3 apply -, or

5. Directive 70/220/EEC in the version of the Directive 94/12/EC (OJ L 100, 19.4.1994, p. 42) - and comply with the limit values of vehicle category M in annex I, no. 5.3.1.4 -, or

6. Directive 96/69/EC of the European Parliament and of the Council of 8 October 1996 amending Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles (OJ L 282, 1.11.1996, p. 64), or

7. Directive 98/77/EC of the Commission of 2 October 1998 adapting to technical progress Council Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles (OJ L 286, 23.10.1998, p. 34), or

8. Directive 98/69/EC of the European Parliament and of the Council of 13 October 1998 relating to measures against air pollution by emissions from motor vehicles and amending Council Directive 70/220/EEC (OJ L 350, 28.12.1998, p. 1), or

9. Directive 1999/102/EC of the Commission of 15 December 1999 adapting to technical progress Council Directive 70/200/EEC relating to measures to be taken against air pollution by emissions from motor vehicles (OJ L 334, 28.12.1999, p. 43), or

10. Directive 2001/1/EC of the European Parliament and of the Council of 22 January 2001 amending Council Directive 70/220/EEC relating to measures to be taken against air pollution by emissions from motor vehicles (OJ L 35, of 6. 2.2001, p. 34), or

11. Directive 2001/100/EC of the European Parliament and of the Council of 7 December 2001 amending Council Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles (OJ L 16, 18.1.2002, p. 32), or

12. Commission Directive 2002/80/EC of 3 October 2002 adapting to technical progress Council Directive 70/220/EC relating to measures to be taken against air pollution by emissions from motor vehicles (OJ L 291, 28.10.2002, p. 20), or

13. Commission Directive 2003/76/EC of 11 August 2003 amending Council Directive 70/220/EC relating to measures to be taken against air pollution by emissions from motor vehicles (OJ L 206, 15.8.2003, p.29), or

14. Regulation (EC) No 715/2007 and Regulation (EC) No 692/2008

are considered as vehicles with a low emission of pollutants.

(3a) Passenger cars and recreational vehicles with compression-ignition engine are considered as vehicles with an especially reduced emission of particulates, if they comply with the requirements of one of the reduction levels or the requirements of Regulation (EC) No 715/2007 and of Commission Regulation (EC) No 692/2008 of 18 July 2008 established in annex XXVI, number 2.

(4) Passenger cars and recreational vehicles with a permissible total weight not exceeding 2,800 kg with positive-ignition or compression-ignition engines which comply with the provisions of annex XXIV are considered as vehicles with a relatively low emission of pollutants. The initial recognition as a vehicle with a relatively low emission of pollutants is no longer authorized from 1 November 1993.

(5) Passenger cars and recreational vehicles with positive-ignition or compression-ignition engines in compliance with—

1. The provisions of annex XXV, or

2. Directive 70/220/EEC in the version of Council Directive 89/458/EEC of 18 July 1989 (OJ L 226, 3 August 1989, p. 1) and a cubic capacity of less than 1, 400 cubic centimeters

are considered as vehicles with a low emission of pollutants.

(6) Vehicles or engines for motor vehicles that are subject to the scope of application of Council Directive 88/77/EEC of 3 December 1987 on the approximation of the laws of the Member States regarding measures to be taken against the emission of gaseous and particulate pollutants from compression engines for use in vehicles and the emission of gaseous pollutants from positive-ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles (OJ L 36, 9 February 1988, p. 33), last amended by Directive 2001/27/EC (OJ L 107, 18 April 2001, p. 10) must be in compliance with the provisions of this directive regarding their emission of pollutants.

(6a) Vehicles or engines for motor vehicles subject to the scope of application of Directive 2005/55/EC of the European Parliament and of the Council of 28 September 2005 on the approximation of the laws of the Member States relating to measures to be taken against the emission of gaseous and particulate pollutants from compression-ignition engines for use

in vehicles and the emission of gaseous pollutants from positive-ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles (OJ L 275, 20 October 2005, p.1) must, with respect to their emission performance, comply with the provisions of this directive and of Commission Directive 2005/78/EC of 14 November 2005 implementing Directive 2005/55/EC of the European Parliament and of the Council on the approximation of the laws of the Member States relating to measures to be taken against the emission of gaseous and particulate pollutants from compression-ignition engines for use in vehicles and the emission of gaseous pollutants from positive-ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles and amending annexes I, II, III, IV, and VI thereto (OJ L 313, 29 November 2005, p. 1), last amended by the provisions stipulated in the annex to this provision.

(7) Motorcycles to which regulation number 40 - standardized regulations for the approval of motorcycles with regard to the emission of gaseous pollutants from positive-ignition engines - of the agreement on the acceptance of standardized conditions for the approval of equipment and parts of motor vehicles and on the mutual acknowledgment of the approval, entered into force by regulation of 14 September 1983 (Federal Law Gazette II, 1983, p. 584) applies, shall, with regard to their emission of exhaust fumes, comply with the provisions of regulation number 40, last amended by the regulation concerning amendment 1 and corrigendum 3 of ECE regulation number 40 concerning standardized regulations for the approval of motor cycles with regard to the emissions of gaseous pollutants from positive-ignition engines of 29 December 1992 (Federal Law Gazette II, 1993, p. 110); this also applies to motorcycles with an unladen mass of more than 400 kg.

(8) Motorcycles other than those stated in paragraph (7) must, as far as their emission of exhaust fumes is concerned, comply with the provisions of regulation number 47 - standardized regulations on the approval of power-assisted bicycles with regard to the emission of gaseous pollutants from positive-ignition engines - of the agreement on the acceptance of standardized conditions for the approval of equipment and parts of motor vehicles and on the mutual acknowledgment of the approval, entered into force by regulation of 26 October 1981 (Federal Law Gazette II, 1981, p. 930).

(8a) Motor vehicles falling under the scope of application of Directive 97/24/EC must, with regard to their emission of exhaust fumes, comply with this directive.

(8b) Motor vehicles falling under the scope of application of the 28th Ordinance to Implement the Federal Emission Control Act (Achtundzwanzigste *Verordnung zur Durchführung des Bundesimmissionsschutzgesetzes)* of 11 November 1998 (Federal Law Gazette I, p. 3411) must be equipped with engines that, with regard to their emission of exhaust fumes, comply with the provisions of the 28th Ordinance to Implement the Federal Emission Control Act of 11 November 1998.

(8c) Tractors or engines for tractors falling under the scope of application of Directive 2000/25/EC of the European Parliament and of the Council of 22 May 2000 on measures to reduce the emission of gaseous and particulate pollutants from engines used in tractors in agriculture and forestry and to amend Council Directive 74/150/EEC (OJ L 173, 12.7.2000, p. 1) must, with regard to their emission of exhaust fumes, comply with the provisions of this directive.

(9) The technical service and inspection agency within the meaning of the stated regulations is the inspection agency for exhaust fumes of the *TÜV-Nord Mobilität GmbH & Co. KG*, Adlerstraße 7, 45307 Essen. Other technical inspection agencies for motor vehicle traffic or agencies recognized by the highest *Land* authorities may also carry out the inspection if they possess the necessary measuring and testing devices. The technical service shall be informed of all inspections. In case of doubt, the technical service shall participate in the inspection; it is holding the main responsibility in all questions of application. On a regular basis, the technical inspection agencies shall adjust their measuring and testing equipment with regard to the measuring results and measuring accuracy to the technical service.

SECTION 47A. (RESCINDED)

SECTION 47B. (RESCINDED)

SECTION 47C. DISCHARGE OF EXHAUST GASES

The outlets of exhaust pipes may only be directed upwards, to the rear, to the rear and downwards, or to the rear and to the left bent at an angle up to 45 degrees to the longitudinal axis of the vehicle; they must be installed in such a manner that no exhaust gases can penetrate the inside of the vehicle. Exhaust pipes shall not project from the side or rear of the vehicle.

SECTION 47D. CARBON DIOXIDE EMISSIONS, FUEL CONSUMPTION, RANGE, ELECTRICITY CONSUMPTION

(1) For motor vehicles subject to the provisions of Council Directive 80/1268/EEC of 16 December 1980 on the approximation of the laws of the Member States relating to the fuel consumption of motor vehicles (OJ L 375, 31.12.1980, p. 36), last amended by the provisions stipulated in the annex to this provision, and subject to the provisions of Regulation (EC) No 715/2007, amended by Regulation (EC) No 692/2008, the values for the carbon dioxide emission, the fuel

consumption, the range, and the electricity consumption shall be determined in accordance with the requirements of these provisions.

(2) If an EC certificate of conformity pursuant to annex IX of Directive 70/156/EEC and annex IX of Directive 2007/46/EC has not been issued, the values established in accordance with the requirements of these directives shall be listed in a certificate which shall be handed to the vehicle holder at the purchase of the vehicle.

SECTION 47E. APPROVAL, RETROFITTING AND REFILLING OF AIR CONDITIONING SYSTEMS
Effective 1 June 2012, motor vehicles with air conditioning system subject to the provisions of Directive 2006/40/EC of the European Parliament and of the Council of 17 May 2006 relating to emissions from air conditioning systems in motor vehicles and amending Council Directive 70/156/EEC (OJ L 161, 14 June 2006, p. 12) and of Commission Regulation (EC) No 706/2007 of 21 June 2007 laying down, pursuant to Directive 2006/40/EC of the European Parliament and of the Council, administrative provisions for the EC type-approval of vehicles, and a harmonised test for measuring leakages from certain air conditioning systems (OJ L 161, 22 June 2007, p.33), must comply with the provisions of this regulation.

SECTION 48. EMISSION CLASSES FOR MOTOR VEHICLES

(1) Motor vehicles for which proof is provided that the emission of gaseous pollutants and air polluting particulates or the noise emissions comply with the provisions of the emission classes stated in annex XIV will be categorized in emission classes pursuant to annex XIV.

(2) Particulate emission reduction systems which can be used to retrofit commercial vehicles with compression-ignition engine or mobile machines and tools must be in compliance with the requirements of annex XXVI or XXVII and must be tested, approved and installed in accordance with the respective annex.

SECTION 49. NOISE LEVEL AND NOISE REDUCTION SYSTEMS

(1) Motor vehicles and their trailers must be constructed in such a way that the noise level does not exceed the extent which is unavoidable according to the state of the art.

(2) Motor vehicles for which regulations on the authorized noise level and the noise reduction system are stipulated in the following directives of the European Communities, shall comply with these regulations:

1. Council Directive 70/157/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the permissible sound level and the exhaust pipe system of motor vehicles (OJ L 42, 23 February 1970, p. 16), amended by the provisions stipulated in the annex to this provision.

2. Council Directive 74/151/EEC of 4 March 1974 on the approximation of the laws of the Member States relating to certain parts and characteristics of wheeled tractors used in forestry or agriculture (OJ L 84, 28 March 1974, p. 25), amended by the provisions stipulated in the annex to this provision.

3. (Rescinded)

4. Directive 97/24/EC in the version stated in the annex to this provision.

Tractors used in agriculture or forestry with a maximum design speed of more than 30 km/h, and self-propelled working machines and high-lift trucks also comply with the regulation under paragraph (1) if they meet the requirements of the directive under number 2. Vehicles also comply with the regulations stipulated in the directive under number 2 if they meet the requirements of the directive under number 1.

(2a) Exhaust pipe systems for motorcycles as well as exchangeable exhaust pipe systems and single parts of such systems as separate technical unit for motorcycles may only be used, offered for sale, or sold within the territorial scope of this ordinance if they are marked with—

1. The EEC type-approval mark in accordance with annex II, no. 3.1.3 of Council Directive 78/1015/EEC of 23 November 1978 on the approximation of laws of the Member States relating to the permissible noise level and the exhaust pipe system of motorcycles (OJ L 349, 13 December 1978, p. 21), last amended by Directive 89/235/EEC (OJ L 98, 11 April 1989, p. 1), or

2. The component type approval in accordance with chapter 9, annex VI, number 1.3, of Directive 97/24/EC , or

3. The type label "e" and the mark of the *Land* which issued the type approval in accordance with chapter 9, annex III, number 2.3.2.2, of Directive 97/24/EC.

Sentence 1 does not apply to—

1. Exhaust pipe systems and exchangeable exhaust pipe systems, which are used exclusively in the racing sport,

2. Exhaust pipe systems and exchangeable exhaust pipe systems for motorcycles with a maximum design speed not exceeding 50 km/h.

(3) Motor vehicles which pursuant to annex XIV belong to noise category G 1 are considered low noise vehicles. They can be marked with the label "*Geräuscharmes Fahrzeug"* (low noise vehicle) pursuant to annex XV. Other vehicles may not be marked with this label. Labels that can be confused with the label described in sentence 1 may not be attached to vehicles.

(4) If there is reason to assume that a vehicle does not comply with the requirements of paragraphs (1) through (2), the operator of the vehicle is obliged to have the noise level measured close to the exhaust system upon order of an authorized person. If the measuring station is not located in the direction the vehicle is taking, the obligation only exists if the detour to reach the measuring station does not exceed 6 km. Upon completion of the measurement, a certificate stating the result shall be issued to the vehicle operator. Measuring costs will be charged to the holder of the vehicle if it is found that the noise level permitted for the vehicle was exceeded.

(5) Technical service and inspection agency within the meaning of the regulations stated in paragraphs (2) and (3) is the Institute for Automotive Engineering (*Institut für Fahrzeugtechnik*) of the Technical Inspection Agency (*TÜV*) Bayern Sachsen e.V., Westendstrasse 199, 80686 München. Inspections may also be carried out by other technical inspection agencies for motor vehicle traffic or by agencies recognized by the highest *Land* authority. The technical service shall be informed about all tests. It shall be consulted in case of doubt; it is leading in all questions on application.

SECTION 49A. LIGHTING SYSTEMS, GENERAL PRINCIPLES

(1) Motor vehicles and their trailers will be equipped only with the required and authorized lighting systems. Fluorescent and reflecting material is also considered as lighting systems. The lighting systems must be firmly attached according to regulations and shall be ready for operation at any time. Lighting systems of motor vehicles and trailers subject to Council Directive 76/756/EEC of 27 July 1976 on the approximation of the laws of the Member States relating to the installation of lighting and light-signaling devices on motor vehicles and their trailers (OJ L 262, 27 September 1976, p. 1), last amended by Directive 2007/35/EC (OJ L 175, 19 June 2007, p. 14) must be visible within the angles stipulated in this directive and under the requirements stipulated therein.

(2) Headlights may be concealable or retractable if their readiness for operation is not prejudiced thereby.

(3) Lighting systems shall be constructed and arranged in such a way that they do not interfere with each other more than necessary even if they are combined in one device.

(4) If lighting systems of the same type are installed in pairs, they must have the same height from the road and be arranged symmetrically to the central line of the vehicle (determined by the exterior geometric shape and not by the edge of their illuminating surface), except for vehicles with unsymmetrical exterior shape and motorcycles with sidecars. They must have the same color, the same intensity and throw their light simultaneously, with the exception of parking lights and direction indicators. The provisions concerning the installation height of the lighting systems from the road apply to the unladen vehicle.

(5) All lighting systems throwing their light ahead must be designed in such a way that they can only be turned on simultaneously with the rear lights and the light for the license plate. This does not apply to—

1. Parking lights.

2. Direction indicators.

3. Giving of light signals (sec 16, para (1), of the Road Traffic Ordinance).

4. Work headlamps attached to—

a) Tractors used in forestry or agriculture.

b) Farming and logging work machines.

5. Daytime running lights in compliance with the provisions stipulated in the annex to this provision.

(6) Only those light sources suitable due to their design may be used in headlights and other lights.

(7) Luminous substances and reflectors may be used for required or permitted warning painting, warning signs etc. on motor vehicles and their trailers.

(8) A sufficient electrical energy supply must be permanently ensured under all standard operation conditions for all headlights and signaling lights installed on a motor vehicle or a combination of vehicles.

(9) Rear position lamps, rear fog lights, tracking lights, end outline marker lamps, stop lights, rear direction indicators, rear yellow reflectors which emit light to the side and are not triangular in shape and reflecting devices, rear side marker lamps, reversing lamp, and license plates with license plate lamps, as well as two additional tri-angular reflectors - for trailers pursuant to section 53, paragraph (7), two additional reflectors as prescribed for motor vehicles - may be attached to a removable board or rack (light holders) of—

1. Trailers used in agriculture or forestry.

2. Trailers to transport railroad cars on the road (wagon carrying trailer).

3. Trailers to transport boats.

4. Revolving tower cranes.

5. Conveyer belts and freight elevators.

6. Towing axles.

7. Towed vehicles.

8. Undercarriages transported for the installation of the bodywork.

9. Mobile construction sheds.

10. House trailers and exhibition trailers used for circuses or fun-fairs within the meaning of section 3, paragraph (2), sentence 1, number 2, letter b, of the Vehicle Licensing Ordinance.

11. Attached working equipment for road maintenance.

12. Trailers for the transportation of long material.

The light holder must be arranged at a right angle to the road and to the central line of the vehicle; it may not swing.

(9a) Additional reversing lamps (sec 52a, para (2)), rear position lamps (sec 53, para (1)), stop lights (sec 53, para (2)), rear reflectors (sec 53, para (4)), rear fog lights (sec 53d, para (2)), and direction indicators (sec 54, para (1)) shall be firmly installed on vehicles or load carrying devices, corresponding to the prescribed lighting systems with regard to their number and type, if the load-carrying device or carried-along load, or part of it, protrudes into the prescribed angles of the required lamps installed at the motor vehicle or trailer. The electrical operation of the rear fog light shall be designed in such a manner that rear fog lights installed on the vehicle are turned off. Switching on and off of the rear fog lights must be performed automatically by plugging or unplugging of the connector for the additional rear fog lights.

(10) The trailers mentioned in paragraph (9), number 1, and section 53, paragraph (7), as well as the attached equipment mentioned in section 53b, paragraph (4), may have light holders consisting of two, or in the cases of section 53, paragraph (5), of three units if these units and holders at the vehicles are constructed in such a way that improper installation is not possible. Position lamps throwing light ahead may also be installed on such units.

(11) The definitions in annex I of Council Directive 76/756/EEC apply for the determination of the “illuminating surface” the “light emitting surface” and the “angle of geometrical visibility”.

SECTION 50. MAIN BEAM AND LOW BEAM HEADLAMPS

(1) Only white light must be used to illuminate the road.

(2) Motor vehicles must be equipped with two headlamps throwing their light ahead; motorcycles - including those with side-cars - must be equipped with one headlight. One headlamp is sufficient for multi-track motor vehicles if their width does not exceed 1,000 mm, as well as for invalid chairs and vehicles that have the design characteristics of invalid chairs, however, with a speed exceeding 30 km per hour. For motor vehicles with a maximum design speed not exceeding eight km per hour, lamps without a light shedding effect are sufficient. Section 17, paragraph (5), of the Road Traffic Ordinance is applicable to tractors or working machines with one axle that are operated by a pedestrian by means of drawbars. In case of one-axle tractors drawing a one-axle trailer, the headlamps may be installed at the trailer instead of the tractor. Motor vehicles of the road maintenance service that are used by public administration agencies or on their behalf with temporarily attached working equipment which covers the properly installed headlamps, may be equipped with two additional main beam and low beam headlamps or with additional headlamps pursuant to paragraph (4) that may be installed more than 1,000 mm (para (3)) above the road; a mechanism must ensure that only one set of headlamps can be switched on at the same time. The higher headlamps may only be turned on when the lower headlamps are covered.

(3) Headlamps must be adjustable and fastened in such a way that an unintentional shifting is prevented. For low beam headlamps, the lowest point of the reflector edge may not lower than 500 mm and the highest point of the illuminating surface may not be higher than 1,200 mm from the road surface. Sentence 2 does not apply to—

1. Vehicles of the road service used by public administration agencies or upon their behalf.

2. Self-propelled working machines, high-lift trucks, and tractors used in agriculture or forestry the design of which does not permit a proper installation of the headlamps. However, if the highest point of the illuminating surface is more than 1,500 mm above the road, they may be operated only at a speed not exceeding 30 km/h when the headlamps are switched on.

(4) Special main beam and low beam headlamps may be available; they may be switched in such a way that the low beam headlamps stay switched on when the main beam headlamps are used.

(5) In the dark, the headlamps must light up the road (main beam) in such a way that the light intensity at a 100 m distance in the direction of the longitudinal axle of the vehicle and the height of the center of the headlamps is at least—

1. 0.25 lx for motorcycles with a cubic capacity not exceeding 100 cm^3.

2. 0.50 lx for motorcycles with a cubic capacity over 100 cm^3.

3. 1.00 lx for other motor vehicles.

Turned on main beam light must be indicated by a blue lamp which is in the driver's range of vision; for motorcycles and tractors with an open driver's seat, the switched on main beam headlamps may be indicated by the position of the switch lever. Motor vehicles with a maximum design speed of not more than 30 kilometers per hour may be equipped with headlamps in compliance with the provisions of paragraph (6), sentences 2 and 3.

(6) Main beam and low beam headlamps used in pairs must be designed in such a way that switching from the main to the low beam occurs simultaneously and steadily. The blinding effect is considered eliminated (low beam) if the illumination does not exceed 1 lx at a distance of 25 m from each headlamp on a plane surface vertical to the road at the height of the headlamp's center and above. If the highest point of the illuminating surface of the headlamps (paragraph (3), sentence 2) is higher than 1,200 mm above the road surface, the illumination under the same conditions at a height above 1,000 mm may not exceed 1 lx. For headlamps installed at a height exceeding 1,400 mm, the cut-off may only be half as high as the center of the headlamp at a distance of 15 m in front of the headlamp. In case of headlamps for asymmetrical low beam, the 1 lx limit from a point corresponding to the center of the headlamp may increase at an angle of 15° towards the right, unless otherwise provided for in international agreements or legal acts pursuant to section 21a. The headlamps must illuminate the road in such a way that the illumination at a distance of 25 m in front of the headlights vertical to the light 150 mm above the road surface achieves at least the values indicated in paragraph (5).

(6a) Paragraphs (2) through (6) do not apply to motor-assisted bicycles. These vehicles must be equipped with a permanent low beam headlamp with an illumination that does not exceed 1 lx at a distance of 25 m in front of the headlight on a level surface vertical to the road surface at the height of the center of the headlamp and above. The headlamp must be adjustable at the vehicle and be fastened in such a manner that its position cannot be changed unintentionally. The nominal power of the bulb in the headlamp must be 15 W. Sentences 1 through 3 also apply to light motorcycles and other power-

assisted bicycles if a sufficient electrical energy supply of the lighting and light-signaling devices is ensured only for use of permanent low beam headlamps pursuant to sentences 2 and 4.

(7) The illumination shall be measured when the engine is idling, the battery fully loaded, and the headlamps properly adjusted.

(8) Multi-track motor vehicles, except tractors, working machines used in agriculture or forestry, and high-lift trucks, must be constructed in such a way that the inclination of the low beam of headlamps, fastened at a maximum height of 1,200 mm above the road surface (para (3)), complies with the provisions stipulated in the annex to this provision.

(9) Main beam headlamps may only be switched on simultaneously or in pairs; when changing from main to low beam, they must all turn off simultaneously.

(10) Motor vehicles with main and low beam headlamps which are equipped with condenser discharge lamps must be equipped with—

1. An automatic light width control within the meaning of paragraph (8).

2. A headlamp washer system.

3. A system ensuring that the low beam light is constantly turned on even when the main beam light is used.

SECTION 51. POSITION LAMPS , FRONT RETRO-REFLECTORS, TRACKING LIGHTS

(1) Motor vehicles, except motorcycles without sidecar and motor vehicles with a width of less than 1,000 mm, must be equipped with two position lamps in order to make their lateral boundaries visible to the front; the space between the exterior point of the position lamps' illuminating surface and the widest point of the vehicle contour must not exceed 400 mm. Permitted are two additional position lamps, which must be part of the headlamps. If the distance between the widest points of the vehicle's contour and the exterior point of the illuminating surface of the headlights does not exceed 400 mm, position lamps integrated in the headlights are sufficient. The light of the position lamps must be white; it may not be blinding. The position lamps must give light permanently also when the main and low beam headlamps are on. Motorcycles with sidecars must be equipped with one position lamp on the exterior side of the sidecar. Motorcycles without sidecars may have a lamp integrated in the headlamp corresponding to a position lamp; sentence 5 shall not apply. Position lamps are not required for one-axle tractors or work machines if they are operated by pedestrians by means of drawbars or if their maximum design speed does not exceed 30 km per hour, and the space between the exterior point of the illuminating surface of the headlamps and the widest point of the vehicle contour does not exceed 400 mm.

(2) Trailers with exterior points of the vehicle contour protruding more than 400 mm beyond the exterior point of the illuminating surface of the position lamps of the drawing vehicle will be marked at the front side by two position lamps. Other trailers may be equipped with two position lamps at the front side. Two non-triangular white reflectors may be installed at the front side of all trailers. The space between the exterior point of the illuminating surface of the position lamps and between the exterior point of the illuminating surface of the reflectors and the exterior point of the vehicle contour of the trailer may not exceed 150 mm. In case of trailers used in agriculture or forestry, it may not exceed 400 mm.

(3) The lowest point of the illuminating surface of the position lamps may not be less than 350 mm and their highest point of the illuminating surface may not be more than 1,500 mm above the road surface. If the vehicle's type of construction does not allow for an attachment at such height, position lamps may be installed at a higher point, however, not higher than 2,100 mm. In case of the front reflectors the lowest point of the illuminating surface may not be less than 350 mm and their highest point of the illuminating surface may not be more than 900 mm above the road surface. If the vehicle's construction type does not allow for attachment at such height, the reflectors may be attached at a higher point which is, however, not to exceed 1,500 mm.

(4) Trailers may have one lamp emitting white light to the front (tracking light) at the rear end of each of the two longitudinal sides.

SECTION 51A. SIDE MARKING

(1) Motor vehicles (except passenger cars) with a length exceeding 6 m as well as trailers must be equipped at their sides with yellow non-triangular reflectors emitting light to the side. At least one of these reflectors must be positioned in the inner third of the three equal parts of the vehicle length; the reflector closest to the front must not be more than 3 m away from the foremost point of the vehicle, in case of trailers, from the foremost point of the tractor. The spacing between two reflectors installed in a row must not be more than 3 m. The reflector attached closest to the rear may not be more than 1 m

away from the rearmost point of the vehicle. The height above the road (highest point of the illuminating surface) may not be more than 900 mm. If the vehicle's type of construction does not allow for this, the reflectors may be attached at a higher point, however, not higher than 1,500 mm. Invalid chairs must be equipped with at least 1 yellow reflector on each side. The reflectors shall be attached at a height not exceeding 600 mm, but at the lowest possible point. These reflectors may also be fastened to the spokes of the wheels.

(2) The reflectors to be mounted according to paragraph (1) may be detachable on—

1. Vehicles whose construction does not allow a permanent firm installation.

2. Agricultural or forestry soil tilling devices drawn behind motor vehicles.

3. Chassis transported for complete assembly.

(3) The side marking of vehicles for which such marking is not prescribed must be in accordance with paragraph (1). However, one reflector in the front third part, if the vehicle length is divided into three equal parts, and one in the rear third part will be sufficient.

(4) Retro-reflecting yellow horizontal stripes, which may be interrupted, are permitted at the vehicles' longitudinal sides. They shall not have the shape of letters or emblems. Section 53, paragraph (10), number 3, shall be applied.

(5) Retro-reflecting white stripes coherent in the form of a ring on the wheels of motorcycles and invalid chairs are permissible.

(6) Vehicles with a length exceeding 6.0 m (with the exception of chassis with driver's cabin, tractors, and work machines used in agriculture or forestry and their trailers as well as work machines and high-lift trucks which, regarding the construction characteristics of their chassis, are not identical to trucks and tractors) must be equipped at their longitudinal sides with yellow side marker lamps emitting light to the side in accordance with Directive 76/756/EEC. For other multi-track vehicles, attachment of corresponding side marker lamps is permissible. The rear side marker lamp may also be red if it is installed in one unit in, combined with, or integrated in the rear lamp, end outline marker lamp, rear fog light, or stop light, or if it forms part of one combined illuminating surface together with the reflector.

(7) In addition to the required equipment pursuant to paragraph (1), vehicle combinations with trailers that are designed to transport long material shall be marked over their entire length (including load) by yellow retro-reflecting material that must at least be in compliance with type 2 of the standard sheet DIN 67 520, part 2, June 1994 edition. To mark vehicle combinations, yellow retro-reflecting stripes, tapes, hose, or cable coatings or similar material may be used. Short interruptions caused by the type of load or the construction of the vehicles are permissible. The equipment shall be installed as low as the structural conditions of the vehicles and the load allow. In deviation from paragraph (6), trailers of vehicle combinations for the transportation of long material shall, to the extent possible, be equipped with one side marker lamp at the front and at the rear of each longitudinal side.

SECTION 51B. END OUTLINE MARKER LAMPS

(1) End outline marker lamps are lights that clearly indicate the overall width of a vehicle. In case of certain vehicles, they are to complement position lamps and rear position lamps and draw the attention to unusual vehicle contours.

(2) Vehicles with a width of more than 2.10 m must and vehicles with a width of more than 1.80 m but not exceeding 2.10 m may be equipped at each side with one white end outline marker lamp emitting light to the front and one red end outline marker lamp emitting light to the rear. Lamps on one side of the vehicle may be combined in one lamp. The distance between the illuminating surface of these lamps and the position lamp or rear position lamp on the same side of the vehicle must be more than 200 mm.

(3) End outline marker lamps must be installed on the vehicles according to the provisions in the annex to this provision. For work machines and high-lift trucks, the same installation instructions as for trailers and semi-trailers apply.

(4) End outline marker lamps are not required for—

1. Tractors and work machines with their trailers used in agriculture or forestry.

2. All machines that can be attached to or drawn by tractors used in agriculture or forestry.

(5) End outline marker lamps that are installed on vehicles for which they are not required must comply with the provisions of paragraphs (1) through (3).

(6) End outline marker lamps may not be installed on vehicles or attached machines whose overall width does not exceed 1.80 m.

SECTION 51C. PARKING LAMPS, PARKING WARNING PLATES

(1) Parking lamps and parking warning plates indicate the side limits of a parked vehicle.

(2) Motor vehicles, trailers, and trains of vehicles may be equipped with either of the following:

1. A white parking lamp emitting light to the front and a red parking lamp emitting light to the rear on each side of the vehicle.

2. One position lamp and one rear position lamp.

3. One detachable white parking lamp for the front side and one detachable red parking lamp for the rear side.

4. One parking warning plate each on the front side and the rear side of the vehicle or train of vehicles with 100 mm wide red and white stripes running towards the outside and towards the bottom at an angle under 45 degrees.

On vehicles with a width not exceeding 2,000 mm and a length not exceeding 6,000 mm, the parking lamps pursuant to number 1 of each side of the vehicle as well as those pursuant to number 3 may be combined in one device.

(3) Lamps pursuant to paragraph (2) sentence 1, numbers 1 and 3, and sentence 2 must be installed on the vehicle in such a manner that the lowest point of the illuminating surface is at a distance of more than 350 mm and the highest point of the illuminating surface is at a distance not exceeding 1,500 mm from the road surface. The distance between the extreme outer edge of the illuminating surface of the lamps and the extreme outer edge of the vehicle's contour may not exceed 400 mm.

(4) Lamps pursuant to paragraph (2), sentence 1, number 3, must be connectable to the vehicle's power supply system during operation or be equipped with rechargeable power sources, which must be permanently connected to the vehicle's power supply system when the vehicle is operated.

(5) Parking warning plates the effective parts of which may be visible only while vehicles are parked must be fastened on the vehicle side that is exposed to traffic. They must be fastened as low as possible and not higher than 1,000 mm (highest point of illuminating surface) and in such a manner that they are flush with the contour of the vehicle, train of vehicles, or cargo. Maximum deviations of 100 mm to the inside are permitted. Reflectors and official license plates may not be covered by parking warning plates.

SECTION 52. ADDITIONAL HEADLAMPS AND OTHER LAMPS

(1) In addition to the headlamps required pursuant to section 50 to illuminate the road, multi-track motor vehicles may be equipped with two fog lights for white or light-yellow light. Motorcycles, including those with a sidecar, may be equipped with only one fog light. The fog lights may not be attached higher than the vehicle's low beam headlamps. If multi-track vehicles are equipped with fog lights with a distance of more than 400 mm between the exterior point of the light emitting surface and the widest point of the vehicle contour, the fog lights must be switched in such a way that they can be used only in connection with the low beam lamps. Fog lights must be adjustable and be fastened to suitable parts of the vehicle in such a way that they do not shift unintentionally. They must be adjusted in such a way that other traffic participants are not blinded. The blinding effect is considered to be eliminated if the illumination does not exceed 1 lx at a distance of 25 m in front of each fog light on a level surface vertical to the road at the height of the center of the fog lights and above it, with nominal voltage at the terminals of the headlight lamp.

(2) A search light with white light is permitted. The power input may not exceed 35 W. It may be used only in connection with the rear position lamps and the lighting of the license plates.

(3) The following vehicles may be equipped with one or more warning lights emitting flashing blue light (flash alarm light):

1. Motor vehicles used by the police in the execution of official duty, the military police, the Federal police or customs service, especially command-, police patrol, troop transport, traffic accident and homicide squad vehicles.

2. Motor vehicles and command cars of the fire department and other units and services of disaster relief and the rescue services.

3. Motor vehicles which according to the motor vehicle registration certificate are recognized as motor ambulances of public transportation services with tracked vehicles including trolley buses.

4. Motor vehicles of rescue services especially equipped for ambulance service or emergency rescue that are recognized as ambulance motor vehicles according to the vehicle registration certificate.

Warning lights emitting flashing blue mainly to the front are authorized on vehicles pursuant to sentence 1, however, in case of multi-track vehicles, only in connection with warning lights emitting flashing blue light (flash alarm light).

(3a) Motor vehicles of the enforcement service of the police may have signal transmitters for red and yellow illuminated letters emitting their light to the front or to the rear. Instead of the signal transmitters fluorescent or retro-reflecting films may be used.

(4) The following vehicles may be equipped with one or, if the horizontal or vertical visibility (geometric visibility) makes it necessary, with several warning lights emitting flashing yellow light (flash alarm light):

1. Vehicles that are used for constructing, maintaining, or cleaning roads or public grounds or for garbage disposal and that are marked by red-white warning labels (safety labels) in compliance with standard sheet DIN 30 710, March 1990 edition.

2. Motor vehicles that because of their construction type or equipment are suited for breakdown repair service and are recognized as breakdown repair service vehicles according to the motor vehicle registration certificate. The registration office may, for the preparation of its decision, order an opinion prepared by an officially recognized expert or test engineer for motor vehicle traffic regarding the suitability of the motor vehicle for breakdown repair service due to its construction type or equipment. The recognition is granted only for vehicles of firms which provide breakdown repair service on a commercial basis or as part of their business, vehicles of automobile clubs and of associations of the transport industry and of auto insurance companies.

3. Vehicles with an unusual width or length or with an unusually wide or long load if the approving authority requires the attachment of warning lights.

4. Vehicles that because of their equipment are equipped as accompanying vehicles for heavy haulage or large volume transports and recognized as such pursuant to their vehicle registration certificate. Other accompanying vehicles may be equipped with detachable warning lights if the approving authority prescribes the carrying of the warning lights.

(5) Ambulances (para (3), no. 4) may be equipped with a special lighting device that emits light only to the front (e.g. red-cross lamp) in order to mark the purpose of the vehicle. The lighting device may not have the effect of headlights.

(6) Motor vehicles used by physicians rendering aid in emergency cases may be equipped with a sign that is visible from the front and rear, shows black letters on yellow ground reading "*Arzt – Notfalleinsatz"* ("Physician - Emergency Service"), is installed on the roof, and emits yellow flash light; this applies only if the physician is entitled to carry such a sign. The authorization to carry such a sign is given by the registration office upon request; it will decide after hearing the competent chamber of physicians. The authorized person will receive a certificate, which shall be carried along while driving to an emergency scene and must be presented to competent persons for examination upon request.

(7) Multi-track vehicles may be equipped with one or more lamps to illuminate working equipment or working places (work lamps). Work lamps may not be used while driving. Notwithstanding sentence 2, work lamps may be switched on while driving at vehicles used for construction, maintenance, and cleaning of roads or public grounds in the road area, or for garbage disposal if driving is a part of the working process. Work lamps may only be turned on if other participants in road traffic are not blinded by them.

(8) Door safety lights emitting red light to the rear when the vehicle doors are open are permitted; for the same purpose, red reflectors may be used.

(9) Awning lights installed on caravans and motor homes are permitted. They may not be used during driving and may be switched on only if blinding of traffic participants on public roads is excluded.

(10) Motor vehicles pursuant to paragraph (3), number 4, may be equipped with continuous horizontal stripes in bright red in accordance with DIN 6164, Part 1, February 1980 edition.

SECTION 52A. REVERSING LAMPS

(1) The reversing lamp illuminates the road surface behind and, if necessary, beside the vehicle and indicates to other traffic participants that the vehicle is reversing or starts to reverse.

(2) Motor vehicles must be equipped with one or two white backup lights at the rear. For trailers, one or two backup lights installed at the rear are permissible. The lowest point of the illuminating surface may not be less than 250 mm and the highest point of the illuminating surface may not be more than 1,200 mm from the road surface.

(3) Multi-track vehicles with a permissible total weight exceeding 3.5 t may be equipped with one reversing lamp on each longitudinal side. The highest point of the illuminating surface may not be more than 1,200 mm above the road surface. These reversing lamp may not project more than 50 mm to the side from the vehicle contours.

(4) Reversing lamps may only be turned on when the vehicle is in reverse gear and if the device to start or turn off the engine is in a position which enables the engine to operate. If one of these conditions is not fulfilled, turning them on or keeping them turned on must be impossible.

(5) If no other adjustment of the angle is required based on a construction type approval, reversing lamps must be inclined in such a way that they do not illuminate the road surface more than 10 m behind the lamp.

(6) Reversing lamps are not required for—

1. Motorcycles.

2. Tractors or work machines used in agriculture or forestry.

3. One-axle tractors.

4. Work machines and high-lift trucks.

5. Invalid chairs.

(7) Reversing lamps that are installed on vehicles for which they are not required must be in compliance with the stipulations in paragraphs (2), (4), and (5).

SECTION 53. REAR POSITION LAMPS, STOP LIGHTS, REFLECTORS

(1) Motor vehicles and their trailers shall be equipped with two sufficiently effective red rear position lamps. Motorcycles without sidecars only need to be equipped with one rear position lamp. The lowest point of the rear position-lamp's illuminating surface may not be less than 350 mm, in case of motorcycles not less than 250 mm above the road surface and the highest point of the illuminating surface may not be more than 1,500 mm, in case of working machines and high-lift trucks and tractors used in agriculture or forestry not more than 1,900 mm above the road surface. If the type of construction does not allow for compliance with these measurements, the highest point of the illuminating surface may not be more than 2,100 mm above the road surface. Rear position lamps must be attached as far as possible from each other; the distance between the extreme outer edge of the illuminating surface and the widest point of the vehicle's outline may not exceed 400 mm. Multi-tracked motor vehicles and their trailers may be equipped with two additional rear position lamps. Required rear position lamps may not be connected to one common fuse.

(2) Motor vehicles and their trailers must be equipped with two sufficiently effective red stop lights at the rear indicating towards the rear the operation of the service brake, and, in case of vehicles pursuant to section 41, paragraph (7), the operation of the mechanical brake. Stop lights may also be on if a retarder or similar device is operated. Stop lights that are installed near the rear position lamps or are combined with them must have a higher intensity than the rear position lamps. Stop lights are not required for—

1. Motorcycles with or without a sidecar with a maximum design speed not exceeding 50 km/h.

2. Invalid chairs.

3. Trailers behind vehicles pursuant to numbers 1 and 2.

4. Vehicles with hydrostatic transmission recognized as a service brake.

Stop lights on vehicles for which they are not required must comply with the regulations of this paragraph. Only one stop light is permitted on motorcycles without sidecars. The lowest point of the illuminating surface of the stop lights may not be less than 350 mm and the highest point of the illuminating surface may not be more than 1,500 mm above the road surface. For vehicles in road maintenance service, used by public administrations or upon their order, the highest point of the illuminating surface of the stop lights may be more than 1,500 mm above the road surface. For work machines, high-lift trucks, and tractors used in agriculture or forestry, the highest point of the illuminating surface may not be more than 1,900 mm above the road surface, and, if the type of construction does not allow for compliance with this measurement, not more than 2,100 mm above the road surface. Multi-track vehicles and their trailers may be equipped with two additional stop lights, permanently fastened on the inside or outside of the vehicle, which may be higher than 1,000 mm above the road surface and, notwithstanding sentence 6, may be attached higher than 1,500 mm above the road surface. They must be fastened as far from each other as possible.

(3) (Rescinded.)

(4) Motor vehicles must be equipped with two red reflectors at the rear. Trailers shall be equipped with two triangular red reflectors; the side length of such reflectors must be at least 150 mm, the top of the triangle must point upwards. The distance between the extreme outer edge of the illuminating surface of the reflector and the extreme outer edge of the vehicle outlines may not exceed 400 mm, and the highest point of the illuminating surface may not be more than 900 mm above the surface of the road. If, due to the construction of the vehicle, such installation of the reflectors is not possible, two additional reflectors are required with a distance between the widest point of the vehicle outline and one pair of reflectors being as low as possible and not to exceed 400 mm, the other pair being spaced from each other as far as possible and installed not more than 900 mm above the surface of the road. Motorcycles without a sidecar may be equipped with one reflector only. Snow-removing machines with a width of more than 3 m drawn by motor vehicles must have an additional triangular reflector in the center between the two other reflectors. Power-assisted bicycles may be equipped with pedal reflectors (sec 67, para (6)). Triangular reflectors are not permitted on motor vehicles.

(5) Required rear position lamps, stop lights, and reflectors must be installed at the extreme end of the vehicle. If this is not possible due to the construction of the vehicle, and if the distance between the extreme end of the vehicle and the level surface vertical to the longitudinal axis of the vehicle where the rear position lamps, the stop lights, or the reflectors are positioned is more than 1,000 mm, one of the mentioned devices each must be additionally attached as far to the rear as possible and, if possible, at the height required according to paragraphs (1), (2), and (4) and approximately in the center line of the vehicle track. During daytime, portable ladders, conveyer belts, and cranes protruding to the rear shall be marked as a load pursuant to section 22, paragraph (4), of the Road Traffic Ordinance.

(6) Paragraphs (1) and (2) do not apply to one-axle tractors or work machines. If one-axle tractors or work machines are connected to a trailer, the rear side of the trailer must have the rear position lamps required for motor vehicles. On trailers with one track drawn by one-axle tractors or work machines or motorcycles, also those with side-car, one rear light and a triangular reflector are sufficient to secure the rear.

(7) In deviation from paragraph (4), sentence 2, the following vehicles may be equipped with reflectors as prescribed for motor vehicles pursuant to paragraph (4), sentences 1 and 8:

1. Agricultural or forestry work equipment drawn by motor vehicles that only work according to their purpose when the drawing vehicle is being operated.

2. Trailers with metal wheels that are only used in agriculture or forestry.

(7a) Trailers used for agriculture or forestry only may, in addition to the reflectors pursuant to paragraph (4), sentence 2, also have reflectors as prescribed for motor vehicles.

(7b) Reflectors on agricultural or forestry work equipment for soil tilling drawn by motor vehicles may be detachable.

(8) Vehicles towed by towing vehicles or towing axles must have rear lights, stop lights, reflectors, and direction indicators. These lights may be fastened to a light holder (sec 49a, para (9)); it must be possible to operate them from the towing vehicle.

(9) Rear position lamps, stop lights, and red reflectors - with the exception of additional stop lights and additional rear position lamps - may not be attached to moving vehicle parts. This does not apply to lighting devices that may be detachable pursuant to section 49a, paragraphs (9) and (10).

(10) Marking of—

1. Motor vehicles with a maximum design speed of 30 km/h and their trailers with a triangular panel with rounded edges that is in compliance with the provision stipulated in the annex to this provision,

2. Heavy and long motor vehicles and trailers with rectangular panels that are in compliance with the provision stipulated in the annex to this provision,

3. Heavy and long vehicles, except passenger cars, with a length exceeding 6.00 m with contour markings consisting of white or yellow retro-reflecting materials that are in compliance with the provisions stipulated in the annex to this provision

is permissible. In case of the vehicles listed in sentence 1, number 3, it is permitted to combine the contour marking with advertising on the side surfaces of the vehicle consisting of retro-reflecting materials, also of different colors, that are in compliance with the provisions stipulated in the annex to this provision.

SECTION 53A. WARNING TRIANGLE, WARNING LIGHT, HAZARD FLASHERS

(1) Warning triangles and warning lights must be portable, stable, and constructed in such a way that they can be recognized at an adequate distance when being used. Warning triangles must be reflecting; warning lights must emit yellow flashing light, be independent of the vehicle's lighting system and have a sufficient service time. The warning devices must be ready for operation.

(2) In motor vehicles, except invalid chairs, motorcycles, and one-axle tractors or work machines, at least the following warning equipment shall be carried along:

1. In passenger cars, agricultural or forestry tractors or work machines as well as in other motor vehicles with a permissible total weight not exceeding 3.5 metric tons—

1 warning triangle.

2. In motor vehicles with a permissible total weight exceeding 3.5 metric tons—

1 warning triangle and a separate warning lamp. A portable flashing light pursuant to section 53b, paragraph (5), sentence 7, may also be carried along as a warning light.

(3) Warning lamps that are carried along without being required according to paragraph (2) may, in deviation from paragraph (1), be connected to the light system of the vehicle, permanently installed in the vehicle, and be of such design that they may be fixed on the inside or outside of the vehicle as needed. They must comply with number 20 of the technical requirements for vehicle parts when type-tested pursuant to section 22a of the Road Traffic Licensing Ordinance (Traffic Gazette (*Verkehrsblatt*) 1973, p. 558).

(4) Vehicles (with the exception of motor vehicles pursuant to section 30a, paragraph (3), except for three-wheel motor vehicles) that must be equipped with direction indicators must have additional hazard flashers. They must be designed as follows:

1. A separate switch must be in the motor vehicle to turn them on and off.

2. When turned on, all blinking lights on the vehicle or train of vehicles must emit flashing yellow light at the same time at a frequency of 1.5 Hz $\pm$ 0.5 Hz (90 impulses $\pm$ 30 impulses per minute).

3. A conspicuous red control light pursuant to section 39a must indicate to the driver that the hazard flashers are switched on.

(5) Hazard flashers used on vehicles for which they are not required must comply with the provisions of paragraph (4).

SECTION 53B. EQUIPMENT AND MARKING OF ATTACHED PARTS AND MOVABLE LOADING PLATFORMS

(1) Attached parts projecting to the side more than 400 mm beyond the extreme outer edge of the illuminating surface of the position lamps or rear position lamps of the vehicle must be equipped with position lamps (sec 51, para (1)), rear

position lamps (sec 53, para (1)) and reflectors (sec 53, para (4)). The lights must be installed so that the space between the extreme outer edge of their illuminating surface and the exterior limits of the attached part does not exceed 400 mm and that the highest point of the illuminating surface is not more than 1,550 mm above the roadway. The extreme outer edge of the illuminating surface of the reflectors may not be more than 400 mm from the exterior limit of the attached part, the highest point of the illuminating surface not more than 900 mm above the roadway. The lights and the reflectors may be taken off during the time where lights are not necessary (sec 17, para (1), of the Road Traffic Ordinance); they must be carried along in or on the vehicle.

(2) Attached parts with exterior ends that project more than 1,000 mm beyond the rear position lamps of the vehicle must be equipped with a rear position lamp (sec 53, para (1)) and a reflector (sec 53, para (4)). Rear position lamp and reflector should be attached at the extreme end of the attached part and, if possible, on the median longitudinal plane of the vehicle. The highest point of the illuminating area of the rear position lamp may not be more than 1,550 mm and the one of the reflector not more than 900 mm above the roadway. Rear position lamp and reflector may be removed during the time where lighting is not necessary (sec 17, para (1), of the Road Traffic Ordinance); they must be carried along in or on the vehicle.

(3) Attached parts pursuant to paragraph (1) must be permanently marked at the front and at the rear; attached parts pursuant to paragraph (2) must be marked at the rear by parking warning plates pursuant to section 51c or by films or plates in accordance with DIN 11030, edition September 1994. These plates, the stripes of which must run towards the outside and to the bottom, do not need to be firmly fixed to the attached part.

(4) If carrying along of attached parts impairs the effect of lighting systems, additionally installed lighting systems of the same type (for example, installed on holders pursuant to sec 49a, para (9) or (10)) must take over their function for the time of the impairment.

(5) During their operation, movable loading platforms and similar equipment, except if attached to motorbuses, must be marked by two lights emitting flashing yellow light with a luminous intensity of 50 candelas at a minimum and 200 candelas at a maximum and by clearly visible red/white warning plates. If possible, the flashing lights and the warning plates must, in relation to the operation position of the equipment, be installed at the back end and as far to the outer edge as possible. If the equipment is in operation position, the flashing lights must be at least visible in the angular ranges required pursuant to section 49a, paragraph (1), sentence 4, for direction indicators installed at the rear of vehicles. The flashing lights must have rounded edges. During operation of the equipmen,t the flashing lights must emit hazard flashing light automatically and independently of the vehicle's light system. The red/white warning plates must be retro-reflecting and secure the rear only. In case of vehicles where permanently installed flashing lights are incompatible with the use or design of the movable loading platform and in case of vehicles where retrofitting would be an unreasonable effort, at least one portable flashing light as safety device for movable loading platforms and similar equipment must be carried along, put up, and operated according to its purpose.

SECTION 53C. MASKED LIGHTS

(1) Vehicles of the Federal Armed Forces, the Federal Police, the police, and disaster control department may be equipped additionally with lights belonging to the masked light system (masked head lamps, masked rear position lamps, marker lights, and masked stop lights).

(2) The masked lights may only be operable if the other lights of the vehicle are turned off.

SECTION 53D. REAR FOG LIGHTS

(1) The rear fog light emits red light and makes it easier to recognize vehicles from the rear in thick fog.

(2) Multi-track vehicles with a maximum design speed exceeding 60 km/h and their trailers must be equipped with one or two rear fog lights at the rear; other vehicles and trailers may be equipped with one rear fog light at the rear.

(3) The lowest point of the illuminating surface may not be less than 250 mm, the highest point may not be more than 1.000 mm above the road surface. In all cases, the distance between the illuminating surface of the rear fog light and the stop light must exceed 100 mm. If only one rear fog light is attached, it must be positioned in the center or to the left of the center.

(4) Rear fog lights must be switched in such a manner that they can only emit their light if the main beam headlamps, the low beam headlamps, the fog headlamps, or a combination of those are turned on. If fog headlamps are installed, it must be possible to turn off the rear fog lights independently from the fog headlamps. If the rear fog lights are turned on operation of the switch for main beam headlamps or low beam headlamps may not turn off the rear fog lights.

(5) Switched on rear fog lights must be indicated to the driver by a pilot lamp emitting yellow light located clearly visible in his vision range.

(6) In a train of vehicles, only the rear fog lights at the last trailer must be illuminated. Turning off of rear fog lights at the tractor or at the first trailer is permissible only if turning off and on again is performed automatically when the plug for the trailer lighting system is plugged in or disconnected.

SECTION 54. DIRECTION INDICATORS

(1) Motor vehicles and their trailers must be equipped with direction indicators. After being switched on, the direction indicators must signal with a frequency of 1.5 Hz ± 0.5 Hz (90 impulses ± 30 impulses per minute) between light and dark and on the same side of the vehicle - except on motorcycles with A.C. light system - in the same phase. They must be installed and constructed in such a way that the indication of the intended change of direction under all lighting- and operating conditions may be clearly recognized by other users of the road for whom it is important to recognize it. Direction indicators need not perform their function as long as they emit hazard flashing light.

(1a) Direction indicators emitting light to the rear may not be attached to movable parts of the vehicle. Direction indicators emitting their light to the front and additional direction indicators at the side may be attached to movable parts of the vehicle if these parts only have one standard position (operation position). Sentences 1 and 2 do not apply to direction indicators that may be detachable pursuant to section 49a, paragraphs (9) and (10).

(2) If direction indicators are not installed within the driver's field of vision, their operation must be distinctly indicated to the driver; this does not apply to direction indicators on motorcycles and additional flashing lights installed at the side. Direction indicators may not impede the driver's vision.

(3) Only yellow flashing lights are permitted as direction indicators.

(4) Required direction indicators are—

1. On multi-track motor vehicles—

Flashing lights installed in pairs at the front and at the rear of the vehicle. Instead of the flashing lights at the front, direction indicators may be installed at the front part of the two longitudinal sides. On vehicles with a length not exceeding 4 m and a width not exceeding 1.60 m, direction indicators on the two longitudinal sides are sufficient. Vehicles where the distance between the exterior edges of the light emitting surfaces of the flashing lights facing each other at the front and at the rear side of the vehicle is more than 6 m must be equipped with additional direction indicators on the two longitudinal sides.

2. On motorcycles—

Flashing lights installed in pairs at the front and the rear side of the vehicle. The distance of the inner edge of the light emitting surface of the blinking lights must at least be 120 mm from the vertical plane traversing the longitudinal axis of the motorcycle for the flashing lights installed at the rear, and at least 170 cm for the flashing lights installed at the front; from the edge of the light emitting surface of the headlight that distance must be at least 100 mm. The lower edge of the light emitting surface of flashing lights on motorcycles must be at least 350 mm above the roadway. If the motorcycle has a sidecar, the flashing lights for the side at which they are normally installed must be fastened to the exterior side of the sidecar.

3. On trailers—

Flashing lights installed in pairs at the rear side. If two trailers are carried along flashing lights on the rear trailer are sufficient if the trailers are drawn by a tractor with a maximum design speed not exceeding 25 km per hour, or if they are marked for a maximum speed not exceeding 25 km per hour as stipulated in section 58.

4. On motorbuses used especially for the transportation of school children—

Two additional flashing lights at the rear of the bus, which must be installed as high and as far towards the exterior side as possible.

5. On multi-track motor vehicles and tractor trailers - except work machines, high-lift trucks and agricultural or forestry tractors and their trailers - with a permissible total weight exceeding 3.5 t:

Additional flashing lights in the front third part of the longitudinal sides, when divided into three equal parts, with a minimum luminous intensity of 50 candelas and a maximum luminous intensity of 200 candelas to the rear. Installation of additional direction indicators pursuant to number 1 is not necessary for those vehicles.

(5) Direction indicators are not required on—

1. One-axle tractors.

2. One-axle work machines.

3. Open invalid chairs.

4. Light motorcycles, small motorcycles and power-assisted bicycles.

5.Trailers of the following types:

a) Trailers with metal wheels only used for agricultural or forestry purposes.

b) Agricultural or forestry work equipment drawn behind vehicles, if they do not conceal the flashing lights of the towing vehicle.

c) One-axle trailers drawn by motorcycles.

d) Carts (sec 3, para (2), sent 1, no 2, letter I, of the Vehicle Licensing Ordinance).

(6) Direction indicators on vehicles for which they are not required must comply with the aforementioned provisions.

SECTION 54A. INTERIOR LIGHTING IN MOTORBUSES

(1) Motorbuses must have lights inside the bus. The vision of the driver may not be impeded by such lights.

(2) The entries and exits for passengers must be sufficiently illuminated as long as the respective passenger door is not closed.

SECTION 54B. WINDPROOF HANDLAMP

In addition to the warning equipment required pursuant to section 53a, paragraph (1), a windproof hand lamp, which operates independently of the vehicle's light system, must be carried along in motorbuses.

SECTION 55. AUDIBLE SIGNALS

(1) Motor vehicles must at least be equipped with one audible signal device to draw the attention of road users who may be in danger to the approaching vehicle without scaring them or annoying others more than necessary. If more than one device for audible signals is installed, it must be made sure that only one device may be operated at a time. The switching over to one or the other device must not allow a sequence of sounds of various basic frequencies.

(2) Klaxons and horns producing a sound with the same basic frequencies (also harmonic chord) that is free of secondary noise may be used as audible signal devices. At a distance of 7 m from the place where the sound source is installed on the vehicle, and at a height ranging between 500 mm and 1,500 mm above the roadway, the volume may at no place exceed 105 dB(A). The measuring shall be performed on an open space with a relatively smooth surface in still air; obstacles (trees, shrubs, etc.) that may interfere with the measurement by echoing or muffling must be at least twice as far from the sound source as the receiver.

(2a) In deviation from paragraphs (1) and (2), motor vehicles pursuant to section 30a, paragraph (3), must have audible signal devices that are in compliance with the provisions stipulated in the annex to this provision.

(3) Motor vehicles that, based on section 52, paragraph (3), are equipped with warning lights emitting flashing blue light must be equipped with at least one warning device having a sequence of sounds of various basic frequencies (Klaxon). If more than one Klaxon is installed, it must be made sure that only one may be operated at a time. Motor vehicles other than those mentioned in sentence 1 may not be equipped with the Klaxon.

(4) Devices for audible signals other than those described in paragraphs (1) through (3) as well as sirens may not be installed on motor vehicles.

(5) Paragraph (1) does not apply to motor vehicles with metal wheels with a maximum design speed not exceeding 8 km per hour nor to one-axle tractors or work machines with drawbars drawn by pedestrians.

(6) Small mopeds must be equipped with at least one clear-sounding bell. Rotation bells and other devices for audible signals are not permitted.

SECTION 55A. ELECTROMAGNETIC COMPATIBILITY

(1) Passenger cars, motorbuses, trucks, tractors, and semi-trailers with at least four wheels and a maximum design speed of more than 25 km/h - except for tractors used in agriculture or forestry, dump trucks, industrial trucks, electric trucks, and dumpers - and their trailers must comply with the provisions regarding the elimination of electromagnetic interference stipulated in the annex to this provision. Sentence 1 applies accordingly to other vehicles equal to the vehicles named regarding their construction characteristics of the chassis and their electrical equipment, as well as to components and independent technical units intended to be installed in the mentioned vehicles.

(2) Motor vehicles pursuant to section 30a, paragraph (3), as well as independent technical units intended to be installed in such vehicles must comply with the provisions on elimination of electromagnetic interference stipulated in the annex to this provision.

SECTION 56. MIRRORS AND OTHER DEVICES FOR INDIRECT VIEW

(1) As stipulated in paragraphs (2) through (3), motor vehicles must have mirrors or other devices for indirect view that are designed and fastened in such a way that the vehicle operator is able to observe all traffic events relevant to him to the rear, to the sides, and directly in front of the vehicle, also when trailers are attached to the vehicle.

(2) The following mirrors are required for—

1. Passenger cars as well as trucks, tractors, and semi-trailers with a maximum authorized mass not exceeding 3.5 metric tons, mirrors or other devices for indirect view designated as required for these vehicles in the provisions stipulated in the annex to this provision. The prescribed mirrors and existing mirrors authorized pursuant to annex III, number 2.1.1, of the Directive stipulated in the annex to this provision and other devices for indirect view must be in compliance with the provisions stipulated in the annex to this provision;

2. Trucks, tractors, semi-trailers, and vehicles for a special purpose pursuant to annex II, letter A, numbers 5.6 and 5.7, of Directive 70/156/EEC with a maximum authorized mass exceeding 3.5 metric tons as well as for motorbuses, mirrors or other devices for indirect view designated as required for these vehicles in the provisions stipulated in the annex to this provision;

the prescribed and existing mirrors or other devices for indirect view authorized pursuant to annex III, number 2.1.1, of the Directive stated in the annex to this provision must comply with the provisions stated in the annex to this provision;

3. Trucks, tractors, semi-trailer towing vehicles, self-propelled working machines corresponding to the construction characteristics of trucks regarding their chassis, and vehicles for a special purpose pursuant to annex II, letter A, number. 5.7 and 5.8, of Directive 2007/46/ EC with a maximum authorized mass of more than 3. 5 metric tons that were introduced into traffic for the first time between 1 January 2000 and 25 January 2007, mirrors or other devices for indirect view that are designated as required for these vehicles in the provisions stipulated in the annex to this provision; these mirrors or other devices for indirect view must be in compliance with the provisions stipulated in the annex to this provision or with the requirements stated in the annex re numbers 1 and 2.

4. Agricultural or forestry tractors with a maximum design speed not exceeding 40 km/h, mirrors that must be in compliance with the provisions stipulated in the annex to this provision.

5. Motor vehicles pursuant to Article 1 of Directive 2002/24/EC, mirrors that must be in compliance with the provisions stipulated in the annex to this provision.

(2a) In case of agricultural or forestry tractors with a maximum design speed not exceeding 40 km/h as well as in case of working machines and high-lift trucks, section 56, paragraph (2), in the version applicable on 29 March 2005 shall be applied.

(3) Mirrors are not required for one-axle tractors, one-axle working machines, open electric carts with a maximum design speed not exceeding 25 km/h, as well as for multi-track motor vehicles with a maximum design speed not exceeding 25 km/h and with an open driver's seat offering a view to the rear when unloaded or loaded trailers are attached.

SECTION 57. SPEEDOMETER AND MILEAGE ODOMETER

(1) Motor vehicles must be equipped with a speedometer installed in the driver's immediate field of vision. This does not apply to—

1. Multi-track motor vehicles with a maximum design speed not exceeding 30 km per hour.

2. Motor vehicles equipped with a tachograph or control device (sec 57a) if the speed indicator is in the driver's immediate field of vision.

(2) The speedometers must indicate the speed in kilometers per hour. The speedometer shall comply with the provisions stated in the annex to this provision.

(3) The speedometer may be combined with a mileage odometer indicating the distance driven in kilometers. The distance indicated by the odometer may divert ± 4% from the distance actually driven.

SECTION 57A. TACHOGRAPHS AND RECORDING EQUIPMENT

(1) The following vehicles shall be equipped with a tachograph appropriate for verification:

1. Motor vehicles with a permissible total weight of 7.5 metric tons and more.

2. Tractors with a motor capacity of 40 kw and more that are not exclusively used for agricultural or forestry purposes.

3. Motor vehicles used to transport passengers with a seating capacity of more than 8 spaces.

This does not apply to—

1. Motor vehicles with a maximum design speed not exceeding 40 km per hour.

2. Motor vehicles of the Federal Armed Forces unless they are motor vehicles of the Federal Armed Forces administration or motorbuses.

3. Motor vehicles of the fire departments and other units and agencies of disaster control.

4. Vehicles designated in section 18, paragraph (1), of the Driver Personnel Ordinance (*Fahrpersonalverordnung*) of 27 June 2005 (Federal Law Gazette I, p. 1882), last amended by Articles 1, 4, and 5 of the Ordinance of 22 January 2008 (Federal Law Gazette I, p. 54).

5. Vehicles designated in Article 3, letters d through g and I, of Regulation (EC) No. 561/2006 of the European Parliament and of the Council of 15 March 2006 (OJ L 102, 11.4.2006, p.1), last amended by Regulation (EC) No. 1073/2009 (OJ L 300, 14.11.2009, p. 88).

(1a) The tachograph as well as all detachable connections of the transmission devices must be sealed.

(2) The tachograph must operate continuously from the start until the termination of the trip and shall also record the stops. Before starting the trip, the record sheets, in case of several connected record sheets the first sheet, will be marked with the name of the drivers and the starting point and date of the first trip; further, at the start and termination of the trip or when inserting or removing the record sheet, the reading indicated by the mileage odometer will be entered by the holder of the motor vehicle or his representative; other remarks on the front side of the record sheet that are neither required nor permitted by legal provisions are not authorized. Only record sheets with test marks may be used which are assigned to the type of tachograph used. The record sheets must be presented to authorized persons upon request at any time; the holder of the motor vehicle shall keep the record sheets on file for a period of 1 year. During each trip, at least one spare record sheet must be carried along.

(3) Paragraphs (1) and (2) do not apply if, instead of a required tachograph, the vehicle is equipped with recording equipment as defined in annex I or I B of Council Regulation (EEC) No 3821/85. In such case, the recording equipment shall be operated according to paragraph (2); if recording equipment in accordance with annex I B of Regulation (EEC) No 3821/85 is used, the driver card does not need to be inserted. In case of motor buses *which/that* are used for scheduled bus services up to 50 kilometers, the official license plate number or operation number of the respective vehicle, instead of the name of the drivers, may be entered on the printouts and record sheets. The data on the mass storage device shall be downloaded by the motor vehicle holder every 3 months; section 2, paragraph (5), of the Driver Personnel Ordinance shall apply accordingly. If the recording equipment is replaced in case of vehicles used for the carriage of goods with a maximum authorized mass of at least 12 metric tons or in case of vehicles used for the carriage of passengers with more than eight seats, except for the driver's seat, and a maximum authorized mass of more than 10 metric tons, which were introduced into traffic for the first time from 1 January 1996 and where the signals are only transmitted electrically to the recording equipment, it must be replaced by equipment in accordance with annex I B of Regulation (EEC) No 3821/85./ Recording equipment that is replaced in vehicles that are used for the carriage of goods and show a maximum authorized mass of at least 12 metric tons or in vehicles that are used for the carriage of passengers, feature more than eight seats (except for the driver's seat), show a maximum authorized mass of more than 10 metric tons, were introduced into traffic for the first time on or after 1 January 1996, and have signals transmitted to the recording equipment only electronically must be replaced by equipment that is in compliance with annex I B of Regulation (EEC) No 3821/85. A replacement of the recording equipment within the meaning of sentence 5 is only considered completed if the entire system consisting of registration unit and motion sensor is replaced.

(4) Other requirements stipulated in special provisions remain unaffected.

SECTION 57B. CHECKING OF TACHOGRAPHS AND RECORDING EQUIPMENT

(1) Holders whose motor vehicles must be equipped with a tachograph pursuant to section 57a, paragraph (1), or with recording equipment according to Regulation (EEC) No. 3821/85 shall have checked the tachographs or the recording equipment at their cost in accordance with paragraph (2) and Anexes XVIII and XVIIIa to ensure that the installation, condition, measuring accuracy, and operation are in compliance with regulations. If there are no concerns regarding the compliance with regulations, the manufacturer or the workshop shall affix an installation plaque on or next to the tachograph or recording equipment in a way that ensures that the plaque is clearly visible and affixed permanently. The installation plaque must be lead-sealed, unless it cannot be removed without destroying the data. The holder of the vehicle must ensure that the installation plaque contains the required data and that it is lead-sealed, installed in accordance with regulations, and is neither covered nor soiled.

(2) The checks shall be made at least once within a period of 2 years after the last check. In addition, the checks must be performed after each installation, each repair of the tachograph or recording equipment system, each alteration of the characteristic coefficient or w-figures, and after each alteration of the effective circumference of the tires of the motor vehicle, as well as in case of recording equipment pursuant to annex I B of regulation (EEC) No 3821/85 also if the UTC-time is wrong by more than 20 minutes and if the official license number of the motor vehicle has been changed.

(3) Checks may be carried out only by manufacturers of tachographs or recording equipment who are officially recognized in accordance with annex XVIIIc, by motor vehicle workshops assigned by them, or by motor vehicle workshops recognized in accordance with annex XVIIId. Checks may be carried out only at check sites that meet the requirements stipulated in annex XVIIIb.

(4) If the tachograph or recording equipment is installed by the vehicle manufacturer, the manufacturer shall perform the installation check pursuant to annex XVIIIa and calibrate the device if he is officially recognized for performance of such work in accordance with annex XVIIIc. Notwithstanding sentence 1, the installation check and calibration may also be performed by a recognized vehicle importer. Installation checks may be carried out only at check sites that meet the requirements determined in annex XVIIIb.

SECTION 57C. EQUIPMENT OF MOTOR VEHICLES WITH SPEED LIMITATION DEVICES AND THEIR USE

(1) Speed limitation devices are devices that, in a motor vehicle, limit the vehicle's maximum speed to the set value mainly by control of the fuel supply to the motor.

(2) All motorbuses as well as trucks, tractors, and semi-trailers with a maximum authorized mass exceeding 3.5 metric tons must be equipped with a speed limitation device. The speed limitation device shall be set for—

1. Motorbuses at a maximum speed of 100 km/h (v_{set}).

2. Trucks, tractors, and semi-trailers at a maximum speed - including all variations - of 90 km/h (v_{set} + variations $\leq$ 90 km/h).

(3) The following vehicles do not need to be equipped with a speed limitation device:

1. Motor vehicles with an actual maximum design speed not exceeding the speed stated in paragraph (2), sentence 2, in conjunction with paragraph (4).

2. Motor vehicles of the Federal Armed Forces, the Federal Police, the units and installations of the disaster control, the fire departments, and the police.

3. Motor vehicles used for scientific testing on the road or for testing within the meaning of section 19, paragraph (6).

4. Motor vehicles used exclusively for public services inside built-up areas or delivered (for example, by the manufacturer of the vehicle's body to the shop or for maintenance and repair work).

(4) The speed limitation devices must comply with the provisions on speed limitation devices stipulated in the annex to this provision.

(5) The speed limitation device must be designed in such a way that it cannot be turned off.

SECTION 57D. INSTALLATION AND INSPECTION OF SPEED LIMITATION DEVICES

(1) Speed limitation devices may be installed in motor vehicles and inspected only by officially recognized—

1. Vehicle manufacturers,

2. Manufacturers of speed limitation devices, or

3. Agents of manufacturers

as well as by workshops authorized by the above.

(2) Vehicle holders whose vehicles are equipped with a speed limitation device pursuant to section 57c, paragraph (2), must have the speed limitation device inspected pursuant to paragraph (1) by an authorized person. Vehicles holders will have the speed limitation device inspected at their cost after each installation, repair, each change of the characteristic coefficient or the effective circumference of tires of the motor vehicle, or of the fuel supply device and have certified that installation, condition, and operation are in compliance with pertinent provisions. The inspection certificate must at least contain the following information:

1. Name, address or company sign of the authorized persons as specified in paragraph (1).

2. The set speed V_{set}.

3. Characteristic coefficient of the motor vehicle.

4. Effective circumference of the tires of the motor vehicle.

5. Date of the inspection.

6. The last eight digits of the motor vehicle identification number.

The vehicle operator shall carry along the inspection certificate for the speed limitation device and shall present it upon request to the competent persons for review. Sentences 1 and 3 do not apply to vehicles with red license plates or short-term license numbers.

(3) When the speed limitation device is installed by the vehicle manufacturer, he shall also issue the certificate required pursuant to paragraph (2) if he is officially authorized to do so.

(4) The highest *Land* authority, the agencies designated by it, or agencies responsible according to *Land* law are competent for the recognition of vehicle manufacturers, manufacturers of speed limitation devices, or the agents of the manufacturers.

(5) The recognition may be given to vehicle manufacturers, manufacturers of speed limitation devices, or agents of the manufacturers for—

1. Carrying out the installation and the inspection pursuant to paragraph (2).

2. The authorization of workshops carrying out the installation and the inspections.

(6) The recognition is given if—

1. The applicant, in case of juristic persons the persons authorized for representation according to law or statute, ensures a reliable performance of the authorities provided thereby.

2. The applicant, if he performs the inspections himself, proves that he has the required technical personnel and the necessary state-of-the-art test equipment and other devices and installations.

3. The applicant, if the installation and inspections are performed by a workshop authorized by him, furnishes proof that by his authority to monitor and give instructions it is ensured that the prerequisites pursuant to number 2 exist for the workshops and that the installation and inspections are properly performed.

(7) If the recognition according to paragraph (5), number 2, is given, the vehicle manufacturer, the manufacturer of speed limitation devices, or the agents of the manufacturers shall notify the recognizing authority and the competent highest *Land* authorities of the authorized workshops.

(8) The recognition is not transferable; it may be combined with additional provisions to ensure that installation and inspections are properly performed.

(9) The highest *Land* authority, the agency designated by it, or the agencies responsible according to *Land* law exercise supervision over the holders of the recognition. The supervisory authority may examine or have examined by assigned experts whether in particular the prerequisites for the recognition still exist, whether the installation and the inspections are performed properly, and whether the additional provisions resulting from the recognition are complied with.

SECTION 58. SPEED LIMIT PLATES

(1) A speed limit plate indicates the permissible maximum speed of a particular vehicle in kilometers per hour.

(2) The plate must be circular and have a diameter of 200 mm and a black rim. Digits shall be on white ground in black bold narrow-spaced lettering according to annex V, page 4, letter size 120 mm.

(2a) The speed limit plates may be retro-reflecting. Retro- reflecting speed limit plates must be in accordance with standard sheet DIN 75069, edition May 1989 and must have the DIN test and control sign with the respective index number on the front side.

(3) The following vehicles must be marked with speed limit plates:

1. Multi-track motor vehicles with a maximum design speed not exceeding 60 km/h.

2. Trailers with a maximum design speed of less than 100 km/h.

3. Trailers with an average braking deceleration of less than 2.5 m/s^2.

(4) Paragraph (3) does not apply to—

1. Tracked vehicles under section 36, paragraph (5), sentence 6, second half of sentence.

2. Agricultural or forestry tractors with a maximum design speed not exceeding 32 km/h.

3. Agricultural or forestry working machines carried along behind motor vehicles.

The provision of section 36, paragraph (1), sentence 2 remains unaffected.

(5) Speed limit plates must be attached to both sides and to the rear side of the vehicle. Farming or forestry tractors and their trailers only require one speed limit plate at the rear side of the vehicle; if the speed limit plate, due to the type of vehicle or its use is temporarily concealed or removed, a speed limit plate must be attached at the right longitudinal side.

SECTION 59. MANUFACTURER'S DATA PLATES, OTHER PLATES, VEHICLE IDENTIFICATION NUMBER

(1) A manufacturer's data plate must be attached to all motor vehicles and trailers at an accessible point at the front on the right side of the vehicle, it must be easily legible and permanently fixed and contain the following information:

1. Vehicle manufacturer,

2. Vehicle type,

3. Year of manufacture (not for vehicles subject to registration).

4. Vehicle identification number.

5. Authorized total weight.

6. Authorized axle loads (not applicable to motorcycles).

This does not apply to trailers designated under section 53, paragraph (7).

(1a) Notwithstanding paragraph (1), a plate in accordance with the provisions stipulated in the annex to this provision shall be attached to passenger cars, motorbuses, trucks and semi-trailers with at least four wheels and a maximum design speed exceeding 25 km/h and their trailers for the transportation of goods; the plate may be attached to other vehicles with the exception of motor vehicles pursuant to section 30a, paragraph (3).

(1b) Notwithstanding paragraph (1), a plate in compliance with the provisions stipulated in the annex to this provision shall be attached to two-wheel or three-wheel motor vehicles pursuant to section 30a, paragraph (3).

(2b) According to the DIN ISO Standard 3779, edition February 1977 or to Council Directive 76/114 EEC of 18 December 1975 on the approximation of the laws of the Member States relating to statutory plates and inscriptions for motor vehicles and their trailers, and their location and method of attachment (OJ L 24, 30.1.1976, p. 1) last amended by Directive 2006/96/EG (OJ L 363, 20.12.2006, p. 81), the vehicle identification number must have 17 digits; other vehicle identification numbers may not have more than 14 digits. Notwithstanding paragraph (1), the identification number must be hammered into or embossed on the chassis at an accessible point at the right front side of the vehicle, or on a part replacing the chassis; it must be easily legible. If the chassis or the part replacing the chassis is dismantled and reused, the following shall be observed –

1. The vehicle identification number hammered into or embossed on the frame shall be permanently crossed out in such a way that the legibility of the number is preserved.

2. The vehicle identification number of the vehicle for which the dismantled frame or part is reused shall be hammered into or embossed next to the crossed-out number.

3. The crossed-out number will be reported to the Registration Office (*Zulassungsbehörde*) which will enter it in the registration certificate and on the file card of the vehicle for which the frame or part is reused.

Sentence 3, no. 3 shall be applied accordingly if after the exchange the vehicle identification number is hammered into or embossed on a frame or part replacing the frame that does not have a vehicle identification number yet.

(3) If there is no vehicle identification number, or if the number cannot be definitely established, a number may be assigned by the Registration Office (*Zulassungsbehörde*). Paragraph (2) is accordingly applicable to such a number.

SECTION 59A. CERTIFICATE OF COMPLIANCE WITH DIRECTIVE 96/53/EC

(1) Vehicles designated in Article 1 of Council Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic (OJ L 235, 17.9.1996, p. 59), last amended by Directive 2002/7/EC

(OJ L 67, 9.3.2002, p. 47) and are in compliance with this directive, must be provided with a certificate of this compliance. The certificate must be in accordance with the provisions stated in the annex to this provision.

(2) The data stated on the document certifying compliance must be identical with those actually measured on the individual vehicle.

SECTION 60. (RESCINDED)

SECTION 60A. (RESCINDED)

SECTION 61. PASSENGER HAND-HOLD SYSTEMS, FOOT RESTS AND STANDS FOR TWO-WHEEL MOTOR VEHICLES

(1) Two-wheel motor vehicles which may carry a passenger must be equipped with a passenger hand-hold system in compliance with the provisions stipulated in the annex to this provision.

(2) Two-wheel motor vehicles must be equipped with foot rests for the driver and passenger on both sides.

(3) Each two-wheel motor vehicle must be equipped with at least one stand which is in compliance with the provisions stipulated in the annex to this provision.

SECTION 61A. SPECIAL PROVISIONS FOR TRAILERS DRAWN BY POWER-ASSISTED BICYCLES
Regarding the application of constructional and operational provisions, trailers drawn by power-assisted bicycles are treated as trailers drawn by bicycles, if –

1. The maximum design speed of the towing vehicle does not exceed 25 km per hour, or

2. The trailers were introduced into traffic for the first time prior to 1 April 1961.

The provisions concerning trailers drawn by small motorcycles are applicable to other trailers drawn by power-assisted bicycles.

SECTION 62. ELECTRIC DEVICES FOR ELECTRICALLY-POWERED MOTOR VEHICLES
Electric equipment of electrically-powered motor vehicles must be designed in such a manner that no injuries to persons or damage to material are caused by an electrical effect during normal operation of the vehicles.

SUBPART 3
OTHER ROAD VEHICLES

SECTION 63. APPLICATION OF REGULATIONS CONCERNING MOTOR VEHICLES
The provisions concerning dimensions, axle load, total weight and tires of motor vehicles and their trailers (sections 32, 34, 36, paragraph (1)) apply accordingly to other road vehicles. Section 31c is applicable to the testing of axle loads with the exception that the detour to the weighing station may not be more than 2 km.

SECTION 64. STEERING DEVICE, OTHER EQUIPMENT AND ANIMAL-DRAWN VEHICLES

(1) Vehicles must be easy to steer. Section 35a, paragraph (1), paragraph (10), sentence 1 and 4 and section 35d, paragraph (1) shall be applied accordingly unless the condition of the goods to be transported precludes that the vehicles be so equipped.

(2) Harnessing only one animal to a two-animal vehicle which has (only) one shaft (in the center) is prohibited if safe and quick control by the driver over the steering mechanism of the animal-drawn vehicle is not guaranteed; this may be achieved by using a collar harness or a breast harness with cruppers or back harness, by tightening the control chain, and by similar means. Harnessing the draft animals at the ends of the two doubletrees (draw beams) of the spring bar (balance) or only to one doubletree of the spring bar is prohibited if the latter is not fixed by a chain or similar means. The use of so-called jerk lines (push bridles) for horses is prohibited.

SECTION 64A. SOUND SIGNAL DEVICES
Bicycles and sleds must be equipped with at least one bell giving a clear sound; sleds pulled by hand are exempt from this regulation. Other devices for sound signals may not be attached to these vehicles. Rotation bells are not permitted on bicycles.

SECTION 64B. MARKING OF VEHICLES
The first and last name and place of residence (firm and place of business) of the owner will be marked in clear, indelible writing on the left side of each vehicle drawn by horses; coaches, passenger sleighs and mobile agricultural or forestry work machines are exempt from this provision.

SECTION 65. BRAKES

(1) All vehicles must have an adequate brake which can be easily operated while driving and which is efficient without damaging the road surface. Bicycles must have two brakes which are independent of each other. No brake is required for hand carts and sleds or for agricultural or forestry work machines which operate only while moving (e.g. ploughs, drill machines, mowers).

(2) Any device firmly attached to the vehicle which can reduce the speed and bring the vehicle to a halt is considered a sufficient brake.

(3) Wooden wedges, drag shoes, and chains will be used only as additional assisting devices, and only if the normal brake is not sufficient for the vehicle.

SECTION 66. REAR-VIEW MIRRORS
Heavy vehicles must have a rear-view mirror for the observation of the road to the rear. This does not apply if it is technically impossible to install the rear-view mirror at an appropriate place of the vehicle; neither does it apply to agricultural or forestry machines.

SECTION 66A. LIGHTING SYSTEMS

(1) From the onset of darkness, during darkness, or if visibility conditions so require, the vehicles must have at least –

1. One lamp with white light at the front,

2. One lamp with red light at a height not more than 1,500 mm above the road surface at the rear.

In case of invalid chairs these lamps must be firmly attached at any time. If trailers are drawn by vehicles it is sufficient if the train is illuminated as a vehicle; however, the longitudinal edges of trailers projecting more than 400 mm beyond the lights of the front vehicle, must be marked by at least one lamp emitting white light. Section 17, paragraph (5) of the Road Traffic Ordinance (*Straßenverkehrsordnung*) applies to hand-drawn vehicles guided by pedestrians.

(2) The lamps must be attached as far as possible to the left and the space between the widest point of the vehicle contour and the lamps may not exceed 400 mm. Lamps used in pairs must have the same intensity and be attached not more than 400 mm from the widest point of the vehicle contour and at the same height.

(3) For agricultural or forestry vehicles drawn by animals, loaded with hay, straw or other inflammable goods, one lamp with white light clearly visible from the front and from the rear attached on the left side or hand-carried, is sufficient.

(4) All vehicles must be equipped with two red reflectors attached to the rear. Their distance may not be more than 400 mm (extreme outer edge of the illuminating surface) from the widest point of the vehicle outline and they must be attached at a maximum height of 900 mm (highest point of the illuminating surface) above the road surface at the same height. The longitudinal sides of the vehicles must be equipped with at least one yellow reflector each attached at a maximum height of 600 mm, however, as low as possible.

(5) Additional yellow reflecting devices emitting light to the side are permitted.

(6) Lights or reflectors may not be concealed or soiled; the lights may not be blinding.

SECTION 67. LIGHTING SYSTEMS ON BICYCLES

(1) Bicycles must be equipped with a bicycle dynamo with a minimum nominal capacity of 3 Watt and a nominal voltage of 6V (lighting while the bicycle is operated) to operate the headlamp and the tail light. For the operation of the headlamp and tail light a battery with a nominal voltage of 6V (permanent battery lighting) may be used in addition. The two systems may not interfere with each other.

(2) Bicycles may only be equipped with the prescribed and authorized lighting systems. Fluorescent and reflecting lights are also considered lighting systems. The lighting systems must be firmly and properly attached and must always be ready for operation. Lighting systems may not be concealed.

(3) Bicycles must be equipped with a head lamp for white light emitting light to the front. The cone of light must at least have such an inclination that its center at a distance of 5 m in front of the headlamp is only half as high as it is at the point where it emanates from the headlamp. The headlamp must be attached to the bicycle in such a way that an unintentional shifting is not possible. Bicycles must be equipped with at least one white reflector emitting light to the front.

(4) At the rear, bicycles must be equipped with –

1. A red tail light whose lowest point of the illuminating surface may not be less than 250 mm above the road surface.

2. At least one red retro-reflector whose highest point of the illuminating surface may not be higher than 600 mm above the road surface.

3. A red large-surface retro-reflector marked with the letter “Z”.

The tail light and one of the retro-reflectors may be combined in one device. Sidecars of bicycles must be equipped with one retro-reflector according to no. 2.

(5) Bicycles may be equipped at the rear with an additional red tail light which also operates when the bicycle is not moving. It must be possible to switch on this tail light independent of the other lighting systems.

(6) Pedals of bicycles must be equipped with amber retro-reflectors emitting light to the front and to the rear; amber retro-reflectors at the pedals emitting light to the side are permitted.

(7) Both longitudinal sides must be marked by—

1. At least two amber spoke retro-reflectors emitting light to the sides which are attached to the spokes of the front wheel and the rear wheel staggered at an angle of 180°, or

2. Continuous retro-reflecting white stripes in the form of a ring at the tires or in the spokes of the front wheel and the rear wheel.

In addition to the minimum equipment with one of the safety devices above, the alternative safety equipment may be attached. If more than two spoke retro-reflectors are attached to one wheel they shall be equally distributed over the circumference of the wheel.

(8) Additional amber retro-reflecting objects emitting light to the side are authorized.

(9) The headlamp and the tail light pursuant to paragraph (4) may only be switched on together. A control device switching automatically from dynamo operation to battery supply at low speed (lighting when the bicycle is not moving) is authorized; in such a case the tail light may be illuminated independently.

(10) In headlamps and lamps only bulbs suitable due to their design may be used.

(11) For racing bicycles with a weight not exceeding 11 kg the following applies in deviation from the above –

1. Instead of the dynamo only one or more batteries pursuant to paragraph (1), sentence 2 need to be carried along for the operation of head lamp and tail light.

2. The headlamp and required tail light do not have to be permanently attached to the bicycle, they must, however, be carried along and must be properly attached to the bicycle and operated under the conditions described in section 17, paragraph (1) of the Road Traffic Ordinance (*Straßen-Vekehrsordnung*).

3. Headlamp and tail light do not need to be switchable at the same time.

4. Instead of the headlamp pursuant to paragraph (1), a headlamp with a nominal voltage of less than 6V and instead of the tail light pursuant to paragraph (4), no. 1 a tail light pursuant to paragraph (5) may be carried along.

(12) When participating in a race, racing bicycles are exempted from the provisions of paragraphs (1) to (11).

Chapter C
IMPLEMENTING PROVISIONS, PROVISIONS CONCERNING FINES, FINAL PROVISIONS

SECTION 68. COMPETENCE

(1) This Ordinance will be implemented by the authorities competent pursuant to *Land* legislation.

(2) Unless otherwise directed, the authority of the place of residence will be locally responsible or, if there is no place of residence, the authority of the place of abode of the applicant or person concerned; for juristic persons, commercial enterprises or official agencies, the authority at the business location or location of the branch office concerned will be responsible. Applications may be processed and completed by an external authority of equal level with the approval of the locally responsible authority. The decisions of the authority (sentences 1 and 2) will be effective within Germany. If traffic safety calls for immediate action any authority at equal level may, instead of the locally responsible authority, take temporary measures on the basis of this Ordinance with the same effect.

(3) In case of the Federal Armed Forces, the Federal Police, the Federal agency for Technical Emergency Service and the police, the competences of the administrative authorities and the higher administrative authorities based on this Ordinance will be performed by their own agencies upon determination by the departmental ministers. For the police service the registration of motor vehicles and their trailers may, upon determination by the departmental ministers be performed by the authorities competent pursuant to paragraph (1).

SECTION 69. (RESCINDED)

SECTION 69A. ADMINISTRATIVE OFFENSES

(1) (Rescinded)

(2) An administrative offense within the meaning of section 24 of the Road Traffic Law (*Straßenverkehrsgesetz*) commits who, intentionally or negligently –

1. Contrary to section 17, paragraph (1), acts in violation of a prohibition to put a vehicle into operation or fails to observe restrictions.

1a. Contrary to section 19, paragraph (5), sentence 1 puts a vehicle into operation or as a vehicle holder orders or permits that a vehicle be put into operation.

2. Acts in violation of an enforceable order or condition pursuant to section 29, paragraph (7), sentence 5 in conjunction with sentence 4.

3. through 6. (Rescinded)

7. Contrary to section 22a, paragraph (2), sentence 1, or paragraph (6), offers for use, sells, acquires or uses a vehicle part without an officially required and assigned type-approval mark, unless this already represents an administrative offense pursuant to section 23 of the Road Traffic Law (*Straßenverkehrsgesetz*).

8. Acts in violation of a provision of section 21a, paragraph (3), sentence 1, or section 22a, paragraph (5), sentence 1, or paragraph (6), concerning the marking of equipment or parts of vehicles with type-approval marks, or in violation of a prohibition pursuant to section 21a, paragraph (3), sentence 2, or section 22a, paragraph (5), sentence 2, or paragraph (6), concerning the attachment of marks which are confusingly similar.

9. Acts in violation of a provision concerning the carrying along and handing over of –

a) through f) (Rescinded)

g) A copy or print of a permit, approval, an extract from a permit or approval, of an expert opinion on a vehicle part or of a certificate pursuant to section 19, paragraph (4), sentence 1.

h) (Rescinded)

i) The certificate concerning the separate approval pursuant to section 22a, paragraph (4), sentence 2.

10. through 13b. (Rescinded)

14. Acts in violation of a provision of section 29, paragraph (1), sentence 1, in connection with numbers 2.1, 2.2, 2.6, 2.7, sentence 2 or 3, numbers 3.1.1, 3.1.2 or 3.2.2 of annex VIII concerning main inspections or safety checks.

15. Acts in violation of a provision of section 29, paragraph (2), sentence 1 concerning inspection badges or inspection marks in connection with an "SP" sign, of section 29, paragraph (5) on the proper condition of inspection badges or inspection marks in connection with an "SP" sign, of section 29, paragraph 7, sentence 5, first half of sentence concerning the operation prohibition or the limited operation, or of section 29, paragraph (8) concerning the prohibition to attach marks which are confusingly similar.

16. Acts in violation of a provision of section 29, paragraph (10), sentence 1 or 2 concerning the obligation to keep and hand over test reports and test protocols.

17. Acts in violation of a provision of section 29, paragraph (11) or (13) concerning the maintenance and keeping of test books.

18. Acts in violation of a provision of section 29, paragraph (1), sentence 1 in conjunction with number 3.1.4.2, sentence 2, second half, of annex VIII concerning the removal of minor defects or number 3.1.4.3, sentence 2, second half, concerning the removal of significant defects or the repeated inspection of the vehicle in order to check if the defects were removed.

19. Contrary to a provision of section 29, paragraph (1), sentence 1 in conjunction with number 4.3, sentence 5 of annex VIII, number 8.1.1, sentence 2, or number 8.2.1, sentence 2 of annex VIIIc does not tolerate imposed measures or fails to submit the required records.

(3) An administrative offense within the meaning of section 24 of the Road Traffic Law (*Straßenverkehrsgesetz*) commits who, intentionally or negligently, operates a motor vehicle or a motor vehicle with trailer (vehicle combination) in violation of one of the following provisions :

1. Section 30 concerning the general condition of vehicles.

1a. Section 30c, paragraphs (1) and (4) concerning protruding outer edges, frontal protection systems.

1b. Section 30d, paragraph (3) concerning the provisions for motorbuses or section 30d, paragraph (4) concerning the technical installations for the transportation of people with limited mobility in motorbuses.

1c. Section 31d, paragraph (2) concerning the equipment of foreign motor vehicles with safety belts, section 31d, paragraph (3) concerning the equipment of foreign motor vehicles with speed limiting devices or their use, or section 31d, paragraph (4), sentence 1 concerning the tread depth of tires on foreign motor vehicles.

2. Section 32, paragraphs (1) through (4), or (9), also in conjunction with section 31d, paragraph (1), concerning dimensions of vehicles and vehicle combinations.

3. Sections 32a, 42, paragraph (2), sentence 1, concerning the carrying of trailers, section 33, paragraph (1), sentence 1, or paragraph (2), number 1 or 6, concerning the towing of vehicles, section 43, paragraph (1), sentences 1 to 3, paragraph (2), sentence 1, paragraphs (3), (4), sentence 1 or 3, concerning equipment to connect vehicles or section 44, paragraphs (1), (2), sentence 1, or paragraph (3) concerning supporting devices and vertical load of vehicles.

3a. Section 32b, paragraph (1), (2) or (4) concerning underrun protection.

3b. Section 32c, paragraph (2) concerning side protection devices.

3c. Section 32d, paragraph (1) or (2), sentence 1, concerning behavior in curves.

4. Section 34, paragraph (3), sentence 3, concerning the permissible axle load or the permissible total weight of vehicles and combinations of vehicles, section 34, paragraph (8), concerning the load on one or more driving axles, section 34, paragraph (9), sentence 1, concerning axle distance, section 34, paragraph (11), concerning retractable or loadable axles, both also in connection with section 31d, paragraph (1), section 34b, concerning track wheel load or total weight of tracked vehicles or section 42, paragraph (1) or paragraph (2), sentence 2, concerning the permissible trailer load.

5. Section 34a, paragraph (1) concerning the seating capacity, loading and marking of motorbuses.

6. Section 35 concerning the motor capacity.

7. Section 35a, paragraph (1), concerning the arrangement or condition of the driver's seat, the driver's compartment or the equipment to operate the vehicle, paragraphs (2), (3), (4), (5), sentence 1 or paragraph (7) concerning the seats and their anchoring, headrests, safety belts and their anchoring or concerning restraining systems, paragraph (8), sentence 1 concerning the installation of rearward-facing child restraints on passenger seats in front of which an operable airbag is installed, or sentence 2 or 4 concerning the warning of the use of rearward-facing child restraints on passenger seats with airbag, paragraph (9), sentence 1, concerning a seat for passengers on motorcycles, or paragraph (10) concerning the design of seats, their backrests and their fastenings, as well as the automatic locking of foldable seats and backrests and the accessibility of the release device, or paragraph (11) concerning anchoring of safety belts and safety belts of three-wheel or four-wheel motor vehicles.

7a. Section 35b, paragraph (1), concerning the condition of equipment to operate vehicles or section 35b, paragraph (2), concerning the vision range of the driver.

7b. Section 35c concerning heating and ventilation, section 35d concerning equipment for mounting and descending attached to vehicles, section 35e, paragraph (1) to (3) concerning doors, or section 35f concerning emergency exits in motorbuses.

7c. Section 35g, paragraph (1) or (2), concerning fire extinguishers in motorbuses, or section 35h, paragraphs 1 to 3, concerning first aid material in motor vehicles.

7d. Section 35i, paragraph (1), sentence 1 or 2, the latter in connection with number 2, sentences 2, 4, 8 or 9, number 3.1, sentence 1, number 3.2, sentence 1 or 2, numbers 3.3, 3.4, sentence 1 or 2, or number 3.5, sentences 2, 3 or 4, of annex X, concerning aisles, or the arrangement of passenger seats in motorbuses, or section 35i, paragraph (2), sentence 1 concerning the transportation of passengers in lying position without adequate restraint systems.

8. Section 36, paragraph (1), sentence 1 or 3 to 5, paragraph (2), sentence 1 or 3 to 5, or paragraph (2a), sentence 1 or 2, concerning tires, section 36, paragraph (5), sentences 1 to 4, concerning tracks of tracked vehicles, or sentence 6 on their authorized maximum speed, section 36 a, paragraph (1), concerning wheel covers or paragraph (3) concerning securing of spare wheels carried along at the outside of a vehicle, or section 37, paragraph (1), sentence 1 concerning wheel slide control or paragraph (2) concerning snow chains.

9. Section 38 concerning steering devices.

10. Section 38a concerning the securing of motor vehicles against unauthorized use.

10a. Section 38b concerning vehicle theft alarm systems.

11. Section 39 concerning equipment for driving in reverse.

11a. Section 39a concerning operation devices, control lamps and indicators.

12. Section 40, paragraph (1) concerning the condition of panes, or section 40, paragraph (2) concerning the arrangement and condition of windshield wipers, or section 40, paragraph (3) concerning panes, windshield wipers, windshield washers, defrosting and drying systems of three-wheel mopeds and three-wheel and four-wheel motor vehicles with driver cabin.

13. Section 41, paragraphs (1) through (13), (15), sentences 1, 3, or 4, paragraph (16), or (17), concerning brakes or section 41, paragraph (14) concerning equipment with wheel chocks, their condition and attachment.

13a. Section 41a, paragraph (8), concerning the safety and marking of pressure tanks.

13b. Section 41b, paragraph (2), concerning the equipment with anti-lock systems, or section 41b, paragraph (4), concerning the connection of trailers with an anti-lock system to motor vehicles.

14. Section 45, paragraphs (1) or (2), sentence 1 concerning gasoline tanks, or section 46 concerning fuel lines.

15. Section 47c concerning discharge of exhaust fumes.

16. (Rescinded.)

17. Section 49, paragraph (1), concerning noise levels.

18. Section 49a, paragraphs (1) to (4), (5), sentence 1, paragraphs (6), (8), (9), sentence 2, paragraph (9a) or (10), sentence 1 concerning the general provisions for lighting systems.

18a. Section 50, paragraph (1), (2), sentence 1, 6, second half, or sentence 7, paragraph (3), sentence 1 or 2, paragraphs (5), (6), sentences 1,3, 4 or 6, paragraph (6a), sentences 2 to 5, or paragraph (9), concerning headlights for long distance and dim light or paragraph (10) on headlights with gas discharge lamps.

18b. Section 51, paragraph (1), sentence 1, sentences 4 to 6, paragraph (2), sentence 1, 4, or paragraph (3), concerning position lamps or front reflectors.

18c. Section 51a, paragraph (1), sentences 1 to 7, paragraph (3), sentence 1, paragraph (4), sentence 2, paragraph (6), sentence 1 or paragraph (7), sentence 1 or 3 concerning the side marking of vehicles, or section 51b, paragraph (2), sentence 1 or 3, paragraph (5) or (6) on end outline marker lamps.

18d. Section 51c, paragraphs (3) to (5), sentence 1 or 3, concerning parking lamps or parking warning plates.

18e. Section 52, paragraph (1), sentence 2 to 5 concerning fog lights, section 52, paragraph (2), sentence 2 or 3 concerning searchlights, section 52, paragraph (5), sentence 2 concerning special lighting systems on ambulances, section 52, paragraph (7), sentence 2 or 4 concerning flood lights, or section 52, paragraph (9), sentence 2, concerning lights at tents in front of caravans or motor homes.

18f. Section 52a, paragraph (2), sentence 1 or 3, paragraph (4), (5), or (7), on reversing lamps.

18g. Section 53, paragraph (1), sentence 1, 3 to 5 or sentence 7 concerning rear position lamps, section 53, paragraph (2), sentence 1, 2 or 4 to 6 concerning stop lights, section 53, paragraph (4), sentences 1 to 4 or 6, concerning retro-reflectors, section 53, paragraph (5), sentence 1 or 2 concerning the attachment of rear position lamps, stop lights and retro-reflectors, section 53, paragraph (5), sentence 3 on the marking of equipment extending over the rear, section 53, paragraph (6), sentence 2 concerning rear position lamps on trailers drawn by one-axle tractors or work machines, section 53, paragraph (8), concerning rear position lamps, stop lights, retro-reflectors and direction indicators on towed vehicles unable to operate, or section 53, paragraph (9), sentence 1 concerning the prohibition to attach rear position lamps, stop lights or retro-reflectors at movable vehicle parts.

19. Section 53a, paragraphs (1), (2), sentence 1, paragraph (3), sentence 2, paragraph (4) or (5), concerning warning triangles, warning lights and hazard warning lights, or section 54b concerning the additional carrying along of hand lamps in motorbuses.

19a. Section 53b, paragraph (1), sentences 1 through 3, sentence 4, second half sentence, paragraph (2), sentences 1 through 3, sentence 4, second half sentence, paragraph (3), sentence 1, paragraph (4) or (5) concerning the equipment or marking of attached parts or movable loading platforms.

19b. Section 53c, paragraph (2) concerning masked lights.

19c. Section 53d, paragraphs (2) to (5) concerning rear fog lights.

20. Section 54, paragraph (1), sentences 1 to 3, paragraph (1a), sentence 1, paragraphs (2), (3), (4), number 1, sentences 1 and 4, numbers 2, 3, sentence 1, number 4, or paragraph (6), concerning direction indicators.

21. Section 54a concerning the inside lighting in motorbuses.

22. Section 55, paragraphs (1) through (4) concerning equipment for sound signals.

23. Section 55a concerning elimination of electromagnetic interference.

24. Section 56, paragraph (1) in conjunction with paragraph (2) concerning mirrors or other devices for indirect view.

25. Section 57, paragraph (1), sentence 1, or paragraph (2), sentence 1 concerning the speedometer, section 57a, paragraph (1), sentence 1, paragraph (1a) or (2), sentence 1 concerning tachographs.

25a. Section 57a, paragraph (3), sentence 2 concerning the operation of recording equipment.

25b. Section 57c, paragraph (2) or (5) concerning equipment and use of speed limitation devices.

26. Section 58, paragraph (2) or (5), sentence 1, both also in connection with section 36, paragraph (1), sentence 2, or paragraph (3) or (5), sentence 2, second half, concerning speed limit plates on motor vehicles or trailers, or section 59, paragraph (1), sentence 1, paragraphs (1a), (1b), (2) or (3), sentence 2, concerning manufacturer's data plates and vehicle identification numbers.

26a. Section 59a concerning proof of compliance with Directive 96/53/EC.

27. Section 61, paragraph (1) concerning restraining devices for passengers, or paragraph (3) concerning stands of two-wheel motor vehicles.

27a. Section 61a concerning trailers behind power-assisted bicycles.

28. Section 62 concerning the condition of electrical equipment of electrically-powered motor vehicles.

(4) An administrative offense within the meaning of section 24 of the Road Traffic Law (*Straßenverkehrsgesetz*) commits who, intentionally or negligently, operates a road vehicle other than a motor vehicle or a trailer of a motor vehicle, or who, intentionally or negligently, operates a combination of such vehicles in violation of one of the following provisions:

1. Section 30 concerning the general condition of vehicles.

2. Section 63 concerning dimensions, axle load, total weight and tires as well as the obligation to weigh the vehicle.

3. Section 64, paragraph (1) concerning steering equipment, arrangement and condition of seats, devices for entering and alighting or section 64, paragraph (2) concerning the harnessing of carriages.

4. Section 64a concerning sound signals on bicycles or sledges.

5. Section 64b concerning the marking of horse-drawn carriages.

6. Section 65, paragraph (1) concerning brakes or section 65, paragraph (3) concerning additional braking devices.

7. Section 66 concerning rear-view mirrors.

7a. Section 66a concerning lighting systems, or

8. Section 67 paragraph (1), sentence 1 or 3, paragraph (2), sentences 1, 3 or 4, paragraphs (3), (4), sentence 1 or 3, paragraph (5), sentence 2, paragraph (6), first half sentence, paragraph (7), sentence 1 or 3, paragraph (9), sentence 1, paragraph (10) or (11), number 2, second half sentence concerning lighting systems on bicycles or their sidecars,

(5) An administrative offense within the meaning of section 24 of the Road Traffic Law (*Straßenverkehrsgesetz*) commits who, intentionally or negligently –

1. As the holder of a general operating permit for vehicles violates a provision of section 20, paragraph (3), sentence 3 concerning the completion of motor vehicle registration certificates.

2. Contrary to section 31, paragraph (1) operates a vehicle or train of connected vehicles without being qualified to operate them independently.

3. Contrary to section 31, paragraph (2), as a holder of a vehicle, orders or permits its operation, although he knows or must know that the driver is not qualified to operate the vehicle independently, or that the vehicle, the train of vehicles, the carriage, load or capacity do not comply with the provisions, or the vehicle's roadworthiness is prejudiced by the load or number of passengers.

4. Contrary to section 31a, paragraph (2), as a vehicle holder or his representative fails to make the required entries in the log book prior to the trip or fails to enter date, time and his signature immediately after each trip.

4a. Contrary to section 31a, paragraph (3) fails to hand over or keep a log book.

4b. Contrary to section 31b fails to present or hand over for examination items to be carried along.

4c. Violates a provision of section 31c, sentence 1 or 4, second half sentence, concerning duties to determine the authorized axle loads or concerning reloading or unloading in case of overload.

4d. As driving personnel or vehicle holder violates a provision of section 35g, paragraph (3), concerning the training to handle fire extinguishers or as holder violates a provision of section 35g, paragraph (4) concerning the checking of fire extinguishers.

5. Contrary to section 36, paragraph 2b, sentence 1 fails to mark pneumatic tires or fails to mark them as stipulated therein.

5a. Contrary to section 41a, paragraph (5), sentence 1 fails to have a gas system assembly test performed, contrary to paragraph (5), sentence 3 fails to have an expert opinion prepared, or contrary to paragraph (6), sentence 1 or 2 fails to have a gas system test performed.

5b. (Rescinded).

5c. (Rescinded).

5d. Contrary to section 49, paragraph (2a), sentence 1uses exhaust pipe systems, exchangeable exhaust pipe systems or single parts of these exchangeable exhaust pipe systems as independent technical units for motorcycles, or offers or sells them for use, or, contrary to section 49, paragraph (4), sentence 1 fails to have the noise level checked close to the exhaust system.

5e. Contrary to section 49, paragraph (3), sentence 2, also in connection with section 31e, sentence 2, marks a vehicle, or contrary to section 49, paragraph (3), sentence 3, also in connection with section 31e, sentence 2, attaches a sign.

5f. Contrary to section 52, paragraph (6), sentence 3, fails to carry along the certificate, or to present it for examination.

6. As a vehicle holder or his representative violates a provision of section 57a, paragraph (2), sentence 2, second or third half of sentence, or sentence 3, concerning the completion and use of record sheets, or as a holder violates a provision of section 57a, paragraph (2), sentence 4, concerning the submission and keeping of record sheets.

6a. As a vehicle holder violates a provision of section 57a, paragraph (3), sentence 2, in connection with Article 14 of Regulation (EEC) No 3821/85, concerning the presentation, keeping and submission of record sheets.

6b. As a vehicle holder violates a provision of section 57b, paragraph (1), sentence 1 concerning the obligation to have tachographs or recording equipment checked, or violates a provision of section 57b, paragraph (1), sentence 4 concerning the obligation to have the installation plaque affixed.

6c. As the driver of a motor vehicle, contrary to section 57a, paragraph (2), sentence 2, first half of sentence, fails to mark record sheets prior to starting his trip, or contrary to the third half sentence provides them with notes, contrary to sentence 3 uses other record sheets, contrary to sentence 4, first half sentence, fails to present record sheets, or contrary to sentence 5 fails to carry along a spare record sheet.

6d. As a vehicle holder contrary to section 57d, paragraph (2), sentence 1 fails to have the speed limiting device checked.

6e. As vehicle operator, contrary to section 57d, paragraph (2), sentence 3 fails to carry along or hand over a certificate on the checking of the speed limiting device.

7. Violates a provision of section 70, paragraph (3a) concerning the carrying along or keeping and handing over of certificates about exceptional approvals.

8. Contrary to section 71 fails to comply with enforceable conditions based on which an exceptional approval was issued.

SECTION 69B. (RESCINDED)

SECTION 70. EXEMPTIONS

(1) Exemptions may be granted by –

1. The higher administrative authorities in certain individual cases or generally for specific individual applicants, from the provisions of sections 32, 32d, 34 and 36, also in connection with section 63, further from sections 52 and 65, in case of electric carts and their trailers, also from the provisions of section 41, paragraph (9), and sections 53, 58 and 59.

2. The competent highest *Land* authorities or agencies designated by them or responsible according to *Land* law, from all provisions of this Ordinance in specific individual cases or generally for specific individual applicants; if the exemptions have a substantial effect on the territory of other *Länder* the decision shall be made in agreement with the competent authorities of these *Länder.*

3. The Federal Ministry of Transport, Construction and Urban Development (*Bundesministerium für Verkehr, Bau und Stadtentwicklung*) from all provisions of this Ordinance, unless the *Land* authorities according to numbers 1 and 2 are competent; the ministry will order general exceptions by statutory order without the consent of the *Bundesrat* upon hearing the competent highest *Land* authorities.

4. The Federal Office for Motor Traffic (*Kraftfahrt-Bundesamt*) with the authorization of the Federal Ministry of Transport, Construction and Urban Development (*Bundesministerium für Verkehr, Bau und Stadtentwicklung*) when issuing or supplementing a general operating permit or type approval.

5. The Federal Office for Motor Traffic (*Kraftfahrt-Bundesamt*) for such vehicles in storage for which the general operating permit is no longer valid due to the entering into force of new or revised regulations. In such a case the owner of the general operating permit shall submit an application to the Federal Office for Motor Traffic (*Kraftfahrt-Bundesamt*) by providing the following information:

a) Number of the general operating permit including statement of the type and the concerned model(s).

b) Detailed description of the deviations from the new or revised regulations.

c) Reasons showing why the vehicles in storage cannot comply with the new or revised regulations.

d) Number of the affected vehicles with statement of the vehicle identification numbers or areas, if necessary with statement of the type code numbers and/or model code numbers.

e) Confirmation that the vehicles in storage fully comply with the regulation in effect until the entry into force of the new or revised regulations.

f) Confirmation that the vehicles listed under letter d are kept in Germany or in a storage area named to the Federal Office for Motor Traffic (*Kraftfahrt-Bundesamt*) within the scope of the type approval procedure.

(1a) If the responsible highest *Land* authorities or the agencies designated by them grant exceptions from the provisions of sections 32, 32d, paragraph (1), or section 34 for vehicles or vehicle combinations which are based on new technologies or designs and are operated in specific local areas during a testing period, these agencies shall notify the Federal Ministry of Transport, Construction and Urban Development (*Bundesministerium für Verkehr, Bau und Stadtentwicklung*) in consideration of Article 4, paragraph (5), sentence 2 of Directive 96/53/EC by providing a copy of the exception.

(2) Prior to granting an exemption from sections 32, 32d, 34, and 36 and a general exemption from section 65, the highest road construction authorities of the *Länder* and, if necessary, the agencies charged with road construction shall be heard.

(3) The local area of application for each exemption shall be determined.

(3a) Exemptions from manufacturing and operating provisions granted for a vehicle by administrative act shall be proven by the vehicle operator by means of a certificate, which shall be carried along on trips and handed to competent persons for inspection upon request. In case of one-axle towing vehicles and trailers used in agriculture or forestry as well as in case of work machines used in agriculture or forestry and seat bogies towed behind one-axle towing vehicles or machines used in agriculture or forestry, if they are used exclusively for agricultural or forestry purposes, and in case of electric carts exempt from registration, it is sufficient that the vehicle holder keeps such a certificate; he shall present it to competent persons for inspection upon request.

(4) The Federal Armed Forces, the police, the Federal Police, the fire department and other units and components of the disaster control as well as the customs service are exempt from the provisions of this Ordinance, as far as this is imperative for the performance of sovereign tasks, giving due regard to public safety and order. Deviations from the provisions concerning the equipment with warning lights, concerning warning devices with a sequence of sounds of different basic frequencies (klaxon), and concerning sirens are not permitted.

(5) The governments of the *Länder* are authorized to determine by statutory order that in deviation from paragraph (1), no. 1, in lieu of the higher administrative authorities and in deviation from paragraph (2) in lieu of the highest road construction authorities, other authorities are competent. They may delegate this authorization to the highest *Land* authorities.

SECTION 71. CONDITIONS IN CASE OF EXCEPTIONS

Granting of exceptions from the provisions of this Ordinance may be combined with conditions; the person concerned shall comply with such conditions.

SECTION 72. TRANSITIONAL PROVISIONS

(1) For vehicles, systems, components and independent technical units for these vehicles which were put into service for the first time prior to 5 May 2012, the provisions in effect at the time of their registration shall continue to apply.

(2) The following provisions shall apply to the below-listed regulations:

1. Section 29 (Inspection of Motor Vehicles and Trailers) shall be applied from 1. July 2012. Up to that date section 29 in the version effective 1 July 2012 shall apply.

2. Section 47, paragraph (1a) (Emissions of light passenger and commercial vehicles (Euro 5 and 6)) shall be applied from 1 June 2012 according to the dates stipulated in annex I, Attachment 6, Table 1, Column 7 (date of introduction for new vehicles) with respect to the provisions of Regulation (EC) No 715/2007 and Regulation (EC) No 692/2008 for vehicles put into service for the first time.

3. Section 47, paragraph (6a) (Emissions of heavy goods vehicles pursuant to Directive 2005/55/EC) shall be applied from 1 June 2012 according to the dates stipulated in Article 2, paragraphs (6) and (8) with respect to the provisions of Directives 2005/55/EC and 2005/78/EC to vehicles put into service for the first time with a separate approval. In addition, the following provisions apply to these vehicles:

a) The requirements to ensure correct operation of NO_x control measures in accordance with numbers 6.5.3, 6.5.4 and 6.5.5 of Directive 2006/51/EC shall be applied from 1 June 2012 to vehicles put into service for the first time from this date.

b) The amendments with regard to Directive 2008/74/EC shall be applied from 1 June 2012 to vehicles put into service for the first time from this date.

4. Section 47, paragraph (8c) (Emissions of tractors used in agriculture or forestry) shall be applied as follows to vehicles with a separate approval put into service for the first time:

a) At the latest from the dates stipulated in Article 4, paragraph (3) of Directive 2000/25/EC. In case of vehicles equipped with engines manufactured prior to the dates stipulated in Article 4, paragraph (3) of Directive 2000/25/EC, the dates for each category will be postponed by 2 years for vehicles put into service for the first time. This postponement of the dates applies to vehicles with a separate approval, general operating permit or EC type-approval.

b) At the latest from 1 June 2012 in accordance with the dates stipulated in Article 4, paragraphs (2) and (3) of Directive 2000/25/EC in the version of Directive 2005/13/EC. The postponement of dates by 2 years stipulated in Article 4, paragraphs (5) and (6) of Directive 2000/25/EC in the version of Directive 2005/13/EC apply to vehicles with a separate approval, a general operating permit or EC type-approval.

Section 47, paragraph 8c in the version applicable prior to 1 June 2012 shall remain applicable to tractors used in agriculture or forestry put into service for the first time prior to the stipulated dates.

5. Section 47 d (Carbon dioxide emissions, fuel consumption, range, electricity consumption) shall be applied to vehicles with a separate approval put into service for the first time. Section 47d including the transitional provisions of section 72, paragraph (2) in the version effective prior to 1 June 2012 shall apply to vehicles put into service for the first

time prior to 1 June 2012. The provisions of Directive 2004/3/EC enter into force on 17 May 2012. The provisions of Directive 80/1268/EEC, amended by the provisions of letters a through e stipulated in the annex to this provision shall cease to be effective by 2 January 2013.

6. Section 47e (Approval, retrofitting and refilling of air conditioning systems) shall be applied as described below:

a) Effective 1 June 2012, vehicles with a type-approval issued from 1 January 2011 may not be retrofitted with an air conditioning system containing fluorinated greenhouse gases with a global warming potential higher than 150.

b) Air conditioning systems installed in vehicles for which a type-approval was issued from 1 January 2011 may not be filled with fluorinated greenhouse gases with a GWP higher than 150. Effective 1 January 2017 air conditioning systems in all vehicles may no longer be filled with fluorinated greenhouse gases with a GWP higher than 150; exempt is the refilling of air conditioning systems containing such gases which were installed in the vehicles prior to this date.

c) Vehicles with a separate approval which will be put into service for the first time from 1 January 2017 shall be denied registration if their air conditioning systems are filled with a fluorinated greenhouse gas with a GWP higher than 150. For vehicles with a separate approval which will be put into service for the first time prior to 1 January 2017 and whose air conditioning systems are filled with a fluorinated greenhouse gas with a GWP higher than 150, the requirement to establish the leakage limits pursuant to Article 7 of Regulation (EC) No 706/2007 is not applicable.

6a. Section 57a, paragraph (1) (Tachographs) ceases to have effect on 1 January 2013 for vehicles put into service for the first time.

SECTION 73. TECHNICAL DEFINITIONS

In as far as in this Ordinance reference is made to DIN or ISO-Standards, these are published by Beuth Verlag GmbH, Burggrafenstraße 6, 10787 Berlin, VDE regulations are also published by VDE-Verlag, Bismarckstr. 33, 10625 Berlin. They are safely deposited in the archives of the German Patent and Trademark Office (*Deutsches Patent- und Markenamt*) in Munich.