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COUNCIL DIRECTIVE 92/21/EEC
of 31 March 1992
on the masses and dimensions of motor vehicles of category M₁

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- **C1** Corrigendum, OJ L 14, 22.1.1993, p. 29 (92/21)
- **C2** Corrigendum, OJ L 252, 20.10.1995, p. 27 (95/48)
- **C3** Corrigendum, OJ L 304, 16.12.1995, p. 60 (95/48)

▼**B****COUNCIL DIRECTIVE 92/21/EEC****of 31 March 1992****on the masses and dimensions of motor vehicles of category M₁**

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

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

Having regard to the proposal from the Commission ⁽¹⁾,In cooperation with the European Parliament ⁽²⁾,Having regard to the opinion of the Economic and Social Committee ⁽³⁾,

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

Whereas the total-harmonization method will be essential in order fully to achieve the single market;

Whereas this method will to be used at the time of the revision of the entire EEC type-approval procedure, taking account of the spirit of the Council resolution of 7 May 1985 concerning a new approach to the question of technical harmonization and standardization;

Whereas the technical requirements which motor vehicles must satisfy pursuant to national laws relate, *inter alia*, to their masses and dimensions;Whereas those requirements differ from one Member State to another; whereas it is therefore necessary that all Member States adopt the same requirements, either in addition to or in place of their existing rules in order to allow, in particular, the EEC type-approval procedure which was the subject of Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers ⁽⁴⁾, as last amended by Directive 87/403/EEC ⁽⁵⁾, to be applied in respect of each type of vehicle;

Whereas this Directive will be supplemented by Directives relating to the masses and dimensions of all categories of motor vehicles and their trailers;

Whereas it is not necessary to lay down requirements concerning the dynamic stability of combinations of motor vehicles and trailers since the manufacturers of motor vehicles take this aspect into account when stating the maximum technically permissible towable mass,

HAS ADOPTED THIS DIRECTIVE:

Article 1

For the purposes of this Directive, 'vehicle' means any motor vehicle in category M₁ as defined in ►**M1** Annex II A to Directive 70/156/EEC ◀, intended for use on the road, having at least four wheels and a maximum design speed exceeding 25 km/h.

⁽¹⁾ OJ No C 95, 12. 4. 1990, p. 92.⁽²⁾ OJ No C 284, 12. 11. 1990, p. 80 and Decision of 12. 2. 1992 (not yet published in the Official Journal).⁽³⁾ OJ No C 225, 10. 9. 1990, p. 9.⁽⁴⁾ OJ No L 42, 23. 2. 1970, p. 1.⁽⁵⁾ OJ No L 220, 8. 8. 1987, p. 44.

▼B*Article 2*

No Member State may refuse EEC type-approval or national type-approval of a type of vehicle, or refuse or prohibit the sale, registration, entry into service or use of a vehicle on grounds relating to its masses and dimensions if these satisfy the requirements set out in Annex I.

Article 3

Any amendments necessary to adapt the requirements of the Annexes to this Directive to technical progress shall be adopted by the Commission in accordance with the procedure laid down in Article 13 of Directive 70/156/EEC.

Article 4

1. Member States shall adopt and publish the provisions necessary to comply with this Directive before 1 July 1992 and shall forthwith inform the Commission thereof.

When Member States adopt these provisions, they shall contain a reference to this Directive or be accompanied by such reference on the occasion of their official publication. The methods of making such a reference shall be laid down by the Member States.

They shall apply these provisions from 1 October 1992.

2. Member States shall communicate to the Commission the texts of the main provisions of domestic law which they adopt in the field covered by this Directive.

Article 5

This Directive is addressed to the Member States.

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LIST OF ANNEXES

Annex I: Administrative provisions for type-approval

Appendix 1: Information document

Appendix 2: Type-approval certificate

Annex II: Scope, definitions, requirements

Appendix: Method for verifying the masses of motor vehicles of category M₁

▼M1*ANNEX I***ADMINISTRATIVE PROVISIONS FOR TYPE-APPROVAL****1. Application for EEC type-approval of a vehicle type**

- 1.1. The application for EEC type-approval pursuant to Article 3 (4) of Directive 70/156/EEC of a vehicle type of category M₁ with regard to its masses and dimensions must be submitted by the manufacturer.
- 1.2. A model for the information document is given in Appendix 1.
- 1.3. The following must be submitted to the technical service responsible for conducting the type-approval tests:
 - 1.3.1. a vehicle representative of the type to be approved.

2. Granting of EEC type-approval of a vehicle type

- 2.1. If the relevant requirements are satisfied, EEC type-approval pursuant to Article 4 (3) of Directive 70/156/EEC shall be granted.
- 2.2. A model for the EEC type-approval certificate is given in Appendix 2.
- 2.3. An approval number in accordance with Annex VII to Directive 70/156/EEC shall be assigned to each type of vehicle approved. The same Member State shall not assign the same number to another type of vehicle.

3. Modifications of the type and amendments to approvals

- 3.1. In the case of modifications of the type approved pursuant to this Directive, the provisions of Article 5 of Directive 70/156/EEC shall apply.

4. Conformity of production

- 4.1. As a general rule, measures to ensure the conformity of production shall be taken in accordance with the provisions laid down in Article 10 of Directive 70/156/EEC.

INFORMATION DOCUMENT ⁽¹⁾ No

pursuant to Annex I of Council Directive 70/156/EEC relating to EEC type-approval of a vehicle with respect to the masses and dimensions (Directive 92/21/EEC, as last amended by Directive 95/48/EC)

The following information, if applicable, must be supplied in triplicate and include a list of contents. Any drawings must be supplied in appropriate scale and in sufficient detail on size A4 or folder of A4 format. Photographs, if any, must show sufficient detail.

If the systems, components or separate technical units have electronic controls, information concerning their performance must be supplied.

0. General

- 0.1. Make (trade name of manufacturer) :
- 0.2. Type and general commercial description(s) :
- 0.3. Means of identification of type, if marked on the vehicle ^(b) :
- 0.3.1. Location of that marking :
- 0.4. Category of vehicle ^(c) :
- 0.5. Name and address of manufacturer :
- 0.6. Location of statutory plates and inscriptions and method of affixing
 - 0.6.1. On the chassis :
 - 0.6.2. On the bodywork :
- 0.8. Address(es) of assembly plant(s) :

1. General construction characteristics of the vehicle

- 1.1. Photographs and/or drawings of a representative vehicle :
- 1.2. Dimensional drawing of the whole vehicle :
- 1.3. Number of axles and wheels :
- 1.3.2. Number and position of steered axles :
- 1.3.3. Powered axles (number, position, interconnection) :
- 1.6. Position and arrangement of the engine :

**2. Masses and dimensions ^(e) (in kg and mm)
(Refer to drawing where applicable)**

- 2.1. Wheel base(s) (fully loaded) ^(f) :
- 2.3. Axle track(s) and width(s)
 - 2.3.1. Track of each steered axle ^(g) :
 - 2.3.2. Track of all other axles ^(g) :
- 2.4. Range of vehicle dimensions (overall)
 - 2.4.1. For chassis without bodywork
 - 2.4.1.1. Length ^(h) :
 - 2.4.1.2. Width ^(h) :
 - 2.4.1.2.1. Maximum width :

⁽¹⁾ The item numbers and footnotes used in this Information Document correspond to those set out in Annex I to Directive 70/156/EEC. Items not relevant for the purpose of this Directive are omitted.

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- 2.4.1.3. Height (unladen) ^(l) (for suspensions adjustable for height, indicate normal running position):
- 2.4.1.4. Front overhang ^(m):
- 2.4.1.5. Rear overhang ⁽ⁿ⁾:
- ▶ ⁽¹⁾ 2.4.1.5.2. Maximum permissible overhang of the coupling point ^(nd): ◀
- 2.4.1.6. Ground clearance (as defined in point 4.5 of Section A of Annex II to Directive 70/156/EEC)
- 2.4.1.6.1. Between the axles:
- 2.4.2. For chassis with bodywork
- 2.4.2.1. Length ^(l):
- 2.4.2.2. Width ^(b):
- 2.4.2.3. Height (unladen) ^(l) (for suspensions adjustable for height, indicate normal running position):
- 2.4.2.4. Front overhang ^(m):
- 2.4.2.5. Rear overhang ⁽ⁿ⁾:
- ▶ ⁽²⁾ 2.4.2.5.2. Maximum permissible overhang of the coupling point ^(nd): ◀
- 2.4.2.6. Ground clearance (as defined in point 4.5 of Section A of Annex II to Directive 70/156/EEC)
- 2.4.2.6.1. Between the axles:
- 2.6. Mass of the vehicle with bodywork in running order, or mass of the chassis with cab if the manufacturer does not fit the bodywork (including coolant, oils, fuel, tools, spare wheel and driver) ^(o) (maximum and minimum):
- 2.6.1. Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point (maximum and minimum):
- 2.8. Technically permissible maximum laden mass stated by the manufacturer (maximum and minimum) ^(y):
- 2.8.1. Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point (maximum and minimum):
- 2.9. Technically permissible maximum load on each axle/axle group and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point, stated by the manufacturer:
- 2.11. Maximum mass of trailer which may be coupled
- 2.11.1. Full trailer:
- 2.11.3. Centre/axle trailer:
- 2.11.4. Technically permissible maximum mass of the combination:
- 2.11.6. Maximum mass of unbraked trailer:
- 2.12. Maximum static vertical load on the towing vehicle's coupling point for a trailer:
9. **Bodywork**
- 9.10.3. Seats
- 9.10.3.1. Number:
- 9.17. Statutory plates
- 9.17.1. Photographs and/or drawings of the locations of the statutory plates and inscriptions and of the chassis number:
- 9.17.2. Photographs and/or drawings of the official part of the plates and inscriptions (completed example with dimensions):

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11. **Connections between towing vehicles and trailers and semi-trailers**
- 11.1. Class and type of the coupling device(s) :
- 11.4. Instructions of attachment of the coupling type to the vehicle and photographs or drawings of the fixing points at the vehicle given by the manufacturer ; additional information, if the use of the coupling type is restricted to certain variants or versions of the vehicle type :
- 11.5. Information of the fitting of special towing brackets or mounting plates (!) :

Additional information in the case of off-road vehicles

- 2.4.1. For chassis without bodywork
- 2.4.1.4.1. Approach angle ^(na) : degrees
- 2.4.1.5.1. Departure angle ^(nb) : degrees
- 2.4.1.6. Ground clearance (as defined in point 4.5 of Section A of Annex II to Directive 70/156/EEC)
- 2.4.1.6.2. Under the front axle(s) :
- 2.4.1.6.3. Under the rear axle(s) :
- 2.4.1.7. Ramp angle ^(nc) : degrees
- 2.4.2. For chassis with bodywork
- 2.4.2.4.1. Approach angle ^(na) : degrees
- 2.4.2.5.1. Departure angle ^(nb) : degrees
- 2.4.2.6. Ground clearance (as defined in point 4.5 of Section A of Annex II to Directive 70/156/EEC)
- 2.4.2.6.2. Under the front axle(s) :
- 2.4.2.6.3. Under the rear axle(s) :
- 2.4.2.7. Ramp angle ^(nc) : degrees
- 2.15. Hill-starting ability (solo vehicle) : %
- 4.9. Differential lock : yes/no/optional (!)

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Appendix 2

MODEL

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

EEC type-approval certificate

Stamp of
administration

►⁽¹⁾ Communication concerning the:

- type-approval ⁽¹⁾,
- extension of type-approval ⁽¹⁾,
- refusal of type-approval ⁽¹⁾,
- withdrawal of type-approval ⁽¹⁾,

of a type of a vehicle/component/separate technical unit ⁽¹⁾ with regard to Directive .../.../EC, as last amended by Directive .../.../EC ◀.

Type-approval number:

Reason for extension:

Section I

- 0.1. Make (trade name of manufacturer):
- 0.2. Type and general commercial description(s):
- 0.3. Means of identification of type if marked on the vehicle/component/separate technical unit ⁽¹⁾ ⁽²⁾:
- 0.3.1. Location of that marking:
- 0.4. Category of vehicle ⁽³⁾:
- 0.5. Name and address of manufacturer:
- 0.7. In the case of components and separate technical units, location and method of affixing of the EEC approval mark:
- 0.8. Address(es) of assembly plant(s):

Section II

- 1. Additional information (where applicable): See Addendum
- 2. Technical service responsible for carrying out the tests:
- 3. Date of test report:
- 4. Number of test report:
- 5. Remarks (if any): See Addendum
- 6. Place:
- 7. Date:
- 8. Signature:
- 9. The index to the information package lodged with the approval authority, which may be obtained on request, is attached.

⁽¹⁾ Delete where not applicable.

⁽²⁾ If the means of identification of type contains characters not relevant to describe the vehicle, component or separate technical unit types covered by this type-approval certificate such characters shall be represented in the documentation by the symbol '?' (e.g. ABC??123??).

⁽³⁾ As defined in Annex II A to Directive 70/156/EEC.

▼ M1**Addendum**

to EEC type-approval certificate No ...

concerning the type approval of a vehicle with regard to Directive 92/21/EEC, as last amended by Directive 95/48/EC

1. **Additional information**
 - 1.1. Length : (mm)
 - 1.2. Width : (mm)
 - 1.3. Height : (mm)
 - 1.4. Mass of vehicle in running order : (kg)
 - 1.5. Technically permissible maximum mass : (kg)
 - 1.6. Technically permissible maximum axle loads
 - 1.6.1. 1. Axle : (kg)
 2. Axle : (kg)
 3. Axle : (kg)
 - 1.7. Number of passenger seats (without driver) :
 - 1.7.1. Number of folding seats, if applicable :
 - 1.8. Towable mass
 - 1.8.1. Trailer without service brake : (kg)
 - 1.8.2. Trailer with service brake : (kg)
 - 1.8.3. Technically permissible vertical load on the coupling point : (kg)
 - 1.8.4. Rear overhang of the coupling device : (mm)
 - 1.8.5. Photographs or drawings of the mounting points of the coupling device on the vehicle :
.....
5. **Remarks**

▼ M1*ANNEX II***SCOPE, DEFINITIONS, REQUIREMENTS****1. Scope**

This Directive applies to the masses and dimensions of motor vehicles in category M₁ as defined in Article 1.

2. Definitions

- 2.1. The pertinent definitions as laid down in Annex I (including the footnotes) and in Annex II to Directive 70/156/EEC apply also to this Directive.
- 2.2. 'Mass of the conventional load' means a mass of 75 kg multiplied by the number of passenger seating positions (including folding (tip-up) seats) designated by the manufacturer.
- 2.3. 'Mass of the load in excess' means the difference between the technically permissible maximum laden mass and the mass in running order increased by the mass of the conventional load. The mass of the load in excess may include the mass of optional equipment, e.g. sunroof, air conditioning, coupling device.
- 2.4. 'Mass of the coupling device' means the mass of the coupling itself and of its attachment hardware as specified by the vehicle manufacturer.
- 2.5. 'Maximum static vertical load on the coupling point' of the vehicle means the technically permissible vertical load transmitted, when the vehicle is stationary, by the drawbar of the trailer to the vehicle coupling and acting via the centre of the coupling device. This load must be specified by the manufacturer.
- 2.6. 'Towable mass' means the mass of the trailer towed excluding the vertical load on the coupling point of the towing vehicle.
- 2.7. 'Folding (tip-up) seat' means an auxiliary seat intended for occasional use and which is normally folded out of the way.

3. Requirements**3.1. Dimensions**

3.1.1. The maximum authorized dimensions of a vehicle are as follows:

3.1.1.1. Length: 12 000 mm

3.1.1.2. Width: 2 500 mm

3.1.1.3. Height: 4 000 mm

3.2. Masses and axle loads

3.2.1. The sum of the technically permissible maximum axle loads must be not less than the technically permissible maximum laden mass of the vehicle.

The technically permissible maximum mass of the vehicle must be not less than the mass of the vehicle in running order plus the mass of the conventional load.

When the vehicle is laden to the technically permissible maximum laden mass in accordance with items 3.2.2 and 3.2.3, the load on each axle must not exceed the technically permissible maximum load on that axle.

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Where the vehicle and, at the same time, its rear axle are laden to the technically permissible maximum mass, the mass bearing on the front axle must be not less than 30 % of the technically permissible maximum mass of the vehicle.

- 3.2.2. For the verification of the requirements, laid down in the third paragraph of item 3.2.1 the masses of the passengers, of the luggage and of the load in excess of the conventional load must be positioned as prescribed in the Appendix. The method for verifying the masses is described in the Appendix. In cases where a vehicle is equipped with removable seats, the verification procedure shall be limited to the condition with the maximum number of seats installed.
- 3.2.3. If the vehicle is intended to tow a trailer, two additional verifications in accordance with item 3.2.1, third paragraph, and item 3.2.2 shall be carried out:
- (a) including the maximum mass of the coupling device; and
 - (b) including both the maximum mass of the coupling device and the mass of the maximum static vertical load on the coupling point.
For the purpose of the latter verification:
- 3.2.3.1. The technically permissible maximum load on the rear axle(s) may be exceeded by not more than 15 %, and the technically permissible maximum laden mass of the vehicle may be exceeded by ► **C3** not more than 10 % or 100 kg, ◀ whichever value is lower, to apply only for this particular usage, provided that the operating speed is restricted to 100 km/h or less.
- 3.2.3.2. The exceeded load and mass mentioned above shall not be taken into account for approvals other than those pursuant to this Directive, except if expressly stated in the respective Directive.
- 3.2.3.3. The manufacturer shall state any speed restrictions referred to in item 3.2.3.1 or other operating conditions in the owner's manual.
- 3.2.4. If the vehicle manufacturer equips the vehicle with a coupling device, he must indicate on it, or in its vicinity on the vehicle the maximum permitted static vertical load on the coupling point.
- 3.3. Towable mass and static vertical load on the coupling device.
- 3.3.1. The technically permissible maximum towable mass in that stated by the manufacturer.
- 3.3.1.1. Towable mass of a vehicle intended to tow a trailer fitted with a service braking system. (For the purpose of computation of the towable mass, any exceeded technically permissible maximum laden mass of the vehicle as per item 3.2.3.1 above shall not be taken into account.)
- 3.3.1.1.1. The maximum permissible towable mass of the vehicle is the lower value of either:
- (a) the technically permissible maximum towable mass based on the construction of the vehicle and/or the strength of the mechanical coupling device; or
 - (b) the technically permissible maximum mass of the towing vehicle (motor vehicle), or, for off-road vehicles as defined in Directive 70/156/EEC, 1,5 times that mass.
- 3.3.1.1.2. However, the maximum technically permissible mass of the trailer must in no case exceed 3 500 kg.

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- 3.3.1.2. Towable mass of a vehicle intended to tow a trailer without a service braking system.
 - 3.3.1.2.1. The permissible towable mass is the lower of the technically permissible maximum towable mass or half of the mass of the towing vehicle in running order.
 - 3.3.1.2.2. The maximum technically permissible mass of the trailer must in no case exceed 750 kg.
- 3.3.2. The technically permissible static vertical load on the coupling device is that stated by the manufacturer; this load must be not less than 4 % of the maximum permissible towable mass and not less than 25 kg. The manufacturer must specify in the owner's manual the maximum permissible static vertical load on the coupling device, the mounting points of the coupling device on the motor vehicle and the maximum permissible overhang of the coupling device.
- 3.3.3. The motor vehicle towing a trailer must be able to start the vehicle combination — laden to its maximum mass — five times on an uphill gradient of at least 12 % within five minutes.
- 3.4. The maximum number of passenger seating positions declared by the manufacturer shall not depend on whether the vehicle is towing a trailer or not.

▼ **M1***Appendix***Method for verifying the masses and axle loads of motor vehicles of category M₁****1. The mass of the vehicle will be verified as follows:**

- 1.1. empty, i.e. in running order as per item 2.6 of Appendix 1 of Annex I, but without driver,

In case of a motor caravan the mass corresponding to fresh water and gas storage tanks filled to 90% capacity shall also be included.

- 1.2. fully laden (under the conditions referred to in points 3.2.1 to 3.2.3 of Annex II), by means of calculation, taking the following into account:

- the seat, if adjustable, must in particular be moved to the rearmost normal driving or seating position as indicated by the manufacturer taking into account only the longitudinal adjustment of the seat and excluding positions used otherwise than for normal driving or seating. Where there are other possibilities for adjusting the seat (vertical, angled, seat back, etc.) the adjusted positions must be as specified by the vehicle manufacturer. In the case of suspension seats, the seat must be locked in the normal driving positions as specified by the manufacturer,

- the masses to be taken into account are as follows:

- a mass of 68 kg for each occupant (driver included),
- a mass of 7 kg for the luggage of each occupant (driver included),

- the mass for each occupant is to be applied vertically through a point located 100 mm in front of the R point ⁽¹⁾ in the case of longitudinally adjustable seats and 50 mm in front of the R point ⁽¹⁾ in the case of all other seats. The mass of the luggage for each occupant is represented by a vertical force passing through the middle of the projection on a horizontal plane of the maximum useful length of the luggage compartment situated in the median longitudinal plan of the vehicle

In case of a special purpose vehicle the mass of the luggage shall be placed according to the manufacturer's specification in agreement with the technical service,

- any mass in excess ► **C3** of the conventional mass ◀ shall be distributed according to the manufacturer's specifications in agreement with the technical service taking account of different levels of equipment and the masses and locations thereof,

- In the case of a motor caravan, the mass of the load in excess must be at least equal to $(10 \text{ kg} \times N) + (10 \text{ kg} \times L)$, where 'L' is the total length of the motor caravan, and 'N' is the number of passengers including driver as stated by the manufacturer.

The mass of the load in excess shall be distributed according to the indication of the manufacturer in agreement with the technical service, in all luggage compartments.

⁽¹⁾ Determined in accordance with the provisions of Annex III to Directive 77/649/EEC.

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1.3. The masses and axle loads specified are determined according to the following table:

Conditions of vehicle					
Masses and axle loads	(a) empty (measured)	(b) fully laden (*) (calculated)	(c) fully laden with load on coupling device (calculated)	(d) maximum permissible axle load	(e) maximum permissible axle load with load on coupling device
Front axle					
Rear axle					
Total	measured/ calculated			↑	↑
				← manufacturer's declaration	

(*) Including the mass of the coupling device if the vehicle is intended to tow a trailer.

2. Results of verification

(If more than one value is given in items 2.8 and 2.9 of the information document, the results must be verified for each value.)

The results are considered satisfactory if:

- the masses and axle loads of the empty vehicle (column (a)) correspond to those declared by the manufacturer, with a tolerance of $\pm 5\%$; (in this case, the value of the mass stated by the manufacturer is adopted for calculating the masses in columns (b) and (c)),
- the masses and axle loads verified under the conditions referred to in columns (b) and (c) do not exceed the maximum permissible masses stated by the manufacturer,
- the requirements set out in item 3.2.1, fourth paragraph, of Annex II are fulfilled,
- the masses and axle loads stated by the manufacturer are compatible with the load characteristics of the types specified for the motor vehicle considering any declared vehicle speed limitations for the towing vehicle as per item 3.7.3 of Annex IV to Directive 92/23/EEC.