# Comparison between EU Council Directive 96/96/EC and Rule No. 1 to the 1997-Agreement

# <u>Transmitted by the representative of the Netherlands</u>

#### **Referenced documents**

- ♦ (Doc. 1): Council Directive 96/96/EC of December 20, 1996 on the approximation of the laws of the Member States relating to roadworthiness tests for motor vehicles and their trailers, as amended by Directive 1999/52/EC, 2001/9/EC, 2001/11/EC and 2003/27/EC.
- (Doc. 2): <u>Rule No. 1</u>, Uniform provisions for periodical technical inspections of wheeled vehicles with regard to the protection of the environment, Addendum 1 to the Agreement concerning the adoption of uniform conditions for periodical technical inspections of wheeled vehicles and the reciprocal recognition of such inspections (1997-Agreement).
- ◆ (Doc. 3): United Nations Economic Commission for Europe, Consolidated Resolution on the construction of vehicles (R.E.3), document TRANS/WP.29/78/Rev.1/Amend.2.

### **Purpose of the document**

The European Union (EU) has indicated that they are looking into the possibility to become a Contracting Party to the 1997-Agreement. The 1997-Agreement presently specifies uniform provisions for periodical technical inspections of wheeled vehicles with regard to the protection of the environment. The EU has laid down similar provisions in Directive 96/96/EC. It is obvious that a difference in provisions, either way as far as the stringency of the requirements are concerned, is not acceptable for the EU when they enter the 1997-Agreement. In order to determine the differences between mentioned provisions this comparison is made as well as a proposal for the text of Rule No. 1, Revision 1.

#### Introduction

Rule No. 1 and Directive 96/96/EC are not directly comparable because they differ in scope as far as the vehicle categories and the inspection areas are concerned. As Rule No. 1 is far more limited in its requirements than Directive 96/96/EC, Rule No. 1 will be used as the basis for the comparison in this document. This means that firstly only those inspection requirements of Directive 96/96/EC will be considered which are also subject of consideration in Rule No. 1 being (ref. Doc. 2, paragraph 5, Inspection Requirements):

- the identification of the vehicle
- exhaust emissions
- noise emissions
- other environment related items listed in the annex, and secondly attention will be paid to the other requirements for only those vehicle categories that are covered in the scope of Rule No. 1.

#### **Scope of vehicle categories**

The "Wheeled vehicles" covered in the scope of Rule No. 1. (Ref. Doc. 2, paragraph 2.4, Definitions) are defined as follows:

"Wheeled vehicle" means motor vehicles of categories M2, M3, N2 and N3, as specified in Consolidated Resolution R.E.3. (document TRANS/WP.29/78/Rev.1/Amend.2), used in international transport whose permissible maximum mass exceeds 3,500 kg, except those used for the carriage of passengers and having not more than eight seats in addition to the driver's seat.

Doc 3 specifies for the categories M2, M3, N2 and N3:

**Category M2**: Vehicles used for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass not exceeding 5 tonnes.

**Category M3**: Vehicles used for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass exceeding 5 tonnes.

**Category N2**: Vehicles used for the carriage of goods and having a maximum mass exceeding 3.5 tonnes but not exceeding 12 tonnes.

Category N3: Vehicles used for the carriage of goods and having a maximum mass exceeding 12 tonnes.

Doc. 1, (Annex 1), uses a different classification of categories:

# Categories of vehicle (Directive 96/96/EC)

- 1. Motor vehicles used for the carriage of passengers and with more than eight seats, excluding the driver's seat
- 2. Motor vehicles used for the carriage of goods and having a maximum permissible mass exceeding 3 500 kg
- 3. Trailers and semi-trailers with a maximum permissible mass exceeding 3 500 kg
- **4.** Taxis, ambulances
- 5. Motor vehicles having at least four wheels, normally used for the road carriage of goods and with a maximum permissible mass not exceeding 3 500 kg, excluding agricultural tractors and machinery
- 6. Motor vehicles having at least four wheels used for the carriage of passengers and with not more than eight seats excluding the driver's seat

#### Conclusion:

- Rule No. 1's definitions of M2 plus M3 are completely covered by Category 1 of the Directive.
- Rule No. 1's definitions of N2 plus N3 are completely covered by Category 2 of the Directive.

The frequency of tests "One year after the first registration and annually thereafter" (Rule No. 1) respectively "One year after the date on which the vehicle was first used, and thereafter annually" (Directive) is identical. In Rule No. 1 "maximum" should be deleted.

# Inspection requirements Rule No. 1

The comparison of the inspection requirements shall be done according to the well-ordered arrangement of Rule No. 1. The corresponding paragraphs of the Directive shall be listed (items B) and than be compared with the requirements of Rule No. 1 (item C).

# Arrangement of Rule No. 1:

| A         | Rule No. 1   |
|-----------|--|
| A.2       | The identification of the vehicle  |
| A.2.1     | The identification of the vehicle, registration number plates              |
| A.2.2     | The identification of the vehicle, identification (serial) number          |
| A.3.1     | Exhaust emissions  |
| A.3.1.1   | Exhaust emissions, positive-ignition engines                               |
| A.3.1.1.1 | Exhaust emissions, positive-ignition engines, exhaust system               |
| A.3.1.1.2 | Exhaust emissions, positive-ignition engines, CO, no advanced control      |
| A.3.1.1.3 | Exhaust emissions, positive-ignition engines, CO, advanced control         |
| A.3.1.2   | Exhaust emissions, compression ignition engines                            |
| A.3.1.2.1 | Exhaust emissions, compression ignition engines, exhaust system            |
| A.3.1.2.2 | Exhaust emissions, compression ignition engines, smoke                     |
| A.4       | Noise emissions  |
| A.5.      | Other environment related items  |
| A.5.1     | Other environment related items, fuel tanks and tubing                     |
| A.5.2     | Other environment related items, engine and transmission                   |
| A.5.3     | Other environment related items, hydraulic braking system                  |
| A.5.4     | Other environment related items, power steering                            |
| A.5.5     | Other environment related items, additional hydraulic units                |
| A.5.6     | Other environment related items, battery                                   |
| A.5.7     | Other environment related items, air-conditioning and refrigeration system |

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#### A Rule No. 1

#### A.2 The identification of the vehicle

# **A.2.1** The identification of the vehicle, registration number plates

| ITEMS                      | PRINCIPAL REASONS FOR REJECTION   |
|----------------------------|---|
| Registration number plates | <ul><li>number plate(s) missing or so insecure that it is (they are) likely to fall off</li><li>inscription missing</li><li>illegible</li></ul> |

#### B Directive 96/96/EC

(Annex II, items to be compulsory tested, Cat. 1 and 2, item 10.1)

| 10.   | Vehicle            |
|-------|--------------------|
| 10.1. | Registration plate |

C Although the Directive does not specify any principal reasons for rejection, the contents of A.2.1 and B.10.1 are comparable.

## A.2.2 The identification of the vehicle, identification (serial) number

| ITEMS                                  | PRINCIPAL REASONS FOR REJECTION                          |
|--|--|
| Vehicle identification (serial) number | - missing or can not be found<br>- incomplete, illegible |

#### B Directive 96/96/EC

(Annex II, items to be compulsory tested, Cat. 1 and 2, item 10.2)

| 10.   | Vehicle        |
|-------|----------------|
| 10.2. | Chassis number |

C Although the Directive does not specify any principal reasons for rejection, the contents of A.2.2 and B.10.2 are comparable.

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#### A.3.1 Exhaust emissions

# A.3.1.1 Exhaust emissions, positive-ignition engines

## A.3.1.1.1 Exhaust emissions, positive-ignition engines, exhaust system

| ITEMS                         | PRINCIPAL REASONS FOR REJECTION |
|-------------------------------|---------------------------------|
| Exhaust system, including     | - leaking, excessively corroded |
| exhaust gas treatment system, | - missing                       |
| when applicable               | - incomplete                    |
|                               | - damaged                       |

#### B Directive 96/96/EC

(Annex II, items to be compulsory tested, Cat. 1 and 2, item 8.2.1)

- 8.2.1. Motor vehicles equipped with positive-ignition engines and fuelled by petrol
  - (a) Where the exhaust emissions are not controlled by an advanced emission control system such as a three-way catalytic converter that is lambda-probe controlled:
    - 1. Visual inspection of the exhaust system in order to check that it is complete and in a satisfactory condition and that there are no leaks.
    - 2. Visual inspection of any emission control equipment fitted by the manufacturer in order to check that it is complete and in a satisfactory condition and that there are no leaks.
  - (b) Where the exhaust emissions are controlled by an advanced emission control system such as a three-way catalytic converter that is lambda-probe controlled:
    - 1. Visual inspection of the exhaust system in order to check that it is complete and in a satisfactory condition and that there are no leaks.
    - 2. Visual inspection of any emission control equipment fitted by the manufacturer in order to check that it is complete and in a satisfactory condition and that there are no leaks.
- C As the text of the Directive is more specific, and also stipulates that the provisions are for petrol-fuelled vehicles only, it is proposed to replace the text of Annex 1 by the text of the Directive.

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#### A.3.1.1.2 Exhaust emissions, positive-ignition engines, CO, no advanced control

| ITEMS                            |  | PRINCIPAL REASONS FOR REJECTION   |
|----------------------------------|--|---|
| CO content when engine is idling | Exhaust<br>emissions not<br>controlled by an<br>advanced control | <ul> <li>higher than the limit value specified by the manufacturer at the specified idling speed, or if it is not available, or a Contracting Party decides not to use the reference value:</li> <li>higher than 4.5 % volume 1/, or according to national provisions;</li> <li>higher than 3.5 % volume 2/, or according to national provisions</li> </ul> |

- 1/ Vehicles registered or put in service the first time before 1 October 1986.
- 2/ Vehicles registered or put in service the first time after 1 October 1986.

#### B Directive 96/96/EC

(Annex II, items to be compulsory tested, Cat. 1 and 2, item 8.2.1)

- 8.2.1. Motor vehicles equipped with positive-ignition engines and fuelled by petrol
  - (a) Where the exhaust emissions are not controlled by an advanced emission control system such as a three-way catalytic converter that is lambda-probe controlled:

    After a reasonable period of engine conditioning (taking account of manufacturer's recommendations) the carbon monoxide (CO) content of the exhaust gases is measured when the engine is idling (no load).

The maximum permissible CO content in the exhaust gases is that stated by the vehicle manufacturer. Where this information is not available or where the Member States' competent authorities decide not to use it as a reference value, the CO content must not exceed the following:

- (i) for vehicles registered or put into service for the first time between the date from which Member States required the vehicles to comply with Directive 70/220/EEC and October 1, 1986: CO—4.5% vol,
- (ii) for vehicles registered or put into service for the first time after October 1, 1986: 3.5% vol.
- C The tenor of both the Directive and Rule No. 1 are alike. However, the text of the Directive is more specific, and also stipulates that the provisions are for petrol-fuelled vehicles only, it is proposed to replace the text of Annex 1 by the text of the Directive.

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#### A.3.1.1.3 Exhaust emissions, positive-ignition engines, CO, advanced control

| ITEMS                            |  | PRINCIPAL REASONS FOR REJECTION  |
|----------------------------------|--|--|
| CO content when engine is idling | Exhaust<br>emissions<br>controlled by an<br>advanced control | <ul> <li>higher than the limit value specified by the manufacturer at the specified idling speed, or if it is not available higher than 0.5 % volume 2/</li> <li>higher than 0.3 % volume at high idling speed (at least 2000 min<sup>-1</sup>)</li> <li>at high idling speed lambda outside of the range 1 ± 0.03, or outside of the manufacturer's specifications</li> </ul> |

2/ Vehicles registered or put in service the first time after 1 October 1986.

#### B Directive 96/96/EC

(Annex II, items to be compulsory tested, Cat. 1 and 2, item 8.2.1)

- 8.2.1. Motor vehicles equipped with positive-ignition engines and fuelled by petrol
  - (b) Where the exhaust emissions are controlled by an advanced emission control system such as a three-way catalytic converter that is lambda-probe controlled:
    - 3. Determination of the efficiency of the vehicle's emission control system by measuring the lambda value and the CO content of the exhaust gases in accordance with Section 4 or with the procedures proposed by the manufacturers and approved at the time of type-approval. For each of the tests the engine is conditioned in accordance with the vehicle manufacturer's recommendations.
    - 4. Exhaust pipe emissions limit values

The maximum permissible CO content in the exhaust gases is that stated by the vehicle manufacturer. Where this information is not available the CO content must not exceed the following:

(i) Measurement at engine idling speed:

The maximum permissible CO content in the exhaust gases must not exceed 0.5% vol. and for vehicles that have been type-approved

according to the limit values shown in Row A or Row B of the table in Section 5.3.1.4. of Annex I to Directive 70/220/EEC, as amended by Directive 98/69/EC <sup>(1)</sup> or later amendments the maximum CO content must not exceed 0.3% vol. Where identification to Directive 70/220/EEC, as amended by Directive 98/69/EC is not possible then the above shall apply to vehicles registered or first put into service after July 1, 2002.

(ii) Measurement at high idle speed (no load), engine speed to be at least 2 000 revs/min.:

CO content: maximum 0.3% vol. and for vehicles that have been type-approved according to the limit values shown in Row A or Row B of the table in Section 5.3.1.4. of Annex Ito Directive 70/220/EEC, as amended by Directive 98/69/EC or later amendments the maximum CO content must not exceed 0.2% vol. Where identification to Directive 70/220/EEC, as amended by Directive 98/69/EC is not possible then the above shall apply to vehicles registered or first put into service after July 1, 2002.

Lambda:  $1 \pm 0.03$  or in accordance with the manufacturer's specifications.

- (iii) For motor vehicles equipped with on-board diagnostic systems (OBD) in accordance with Directive 70/220/EEC (as amended by Directive 98/69/EC and subsequent amendments) Member States may as an alternative to the test specified in Item (i) establish the correct functioning of the emission system through the appropriate reading of the OBD device and simultaneous checking of the proper functioning of the OBD system.
- As the Directive is far more stringent, it is mandatory to replace the text of Rule No. 1 by the text of the Directive. However, it is necessary to replace the references to (tables of) other directives by references to similar Regulations.

# A.3.1.2 Exhaust emissions, compression ignition engines

# A.3.1.2.1 Exhaust emissions, compression ignition engines, exhaust system

| ITEMS                         | PRINCIPAL REASONS FOR REJECTION |
|-------------------------------|---------------------------------|
| Exhaust system, including     | - leaking, excessively corroded |
| exhaust gas treatment system, | - missing                       |
| when applicable               | - incomplete                    |
|                               | - damaged                       |

#### B Directive 96/96/EC

(Annex II, items to be compulsory tested, Cat. 1 and 2, item 8.2.2)

- 8.2.2. Motor vehicles equipped with compression ignition (diesel) engines:
  - 1. Visual inspection of any emission control equipment fitted by the manufacturer in order to check that it is complete and in a satisfactory condition and that there are no leaks.

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## A.3.1.2.2 Exhaust emissions, compression ignition engines, smoke

| ITEMS   | PRINCIPAL REASONS FOR REJECTION  |
|---|--|
| Smoke absorption coefficient (according to ECE Regulation No. 24) <u>1</u> / <u>2</u> / | <ul> <li>higher than limit value indicated by the manufacturer in the type approval mark, or if no reference value is available, or a Contracting Party decides not to use the reference value:</li> <li>higher than 2.5 m<sup>-1</sup> for naturally aspirated engines;</li> <li>higher than 3.0 m<sup>-1</sup> for turbocharged engines</li> </ul> |

- 1/ Vehicles registered or put into service for the first time before 1 January 1980 are exempted from these requirements.
- 2/ Equivalent measuring methods are allowed.

#### B Directive 96/96/EC

(Annex II, items to be compulsory tested, Cat. 1 and 2, item 8.2.2)

- 8.2.2. Motor vehicles equipped with compression ignition (diesel) engines
  - (a) Exhaust gas opacity to be measured during free acceleration (no load from idle up to cut-off speed) with gear lever in neutral and clutch engaged.
  - (b) Vehicle preconditioning:
    - 1. Vehicles may be tested without preconditioning although for safety reasons checks should be made that the engine is warm and in a satisfactory mechanical condition.
    - 2. Except as specified in sub-paragraph (d)(5), no vehicle will be failed unless it has been preconditioned according to the following requirements.
      - (i) Engine shall be fully warm, for instance the engine oil temperature measured by a probe in the oil level dipstick tube to be at least 80° C, or normal operating temperature if lower, or the engine block temperature measured by the level of infrared radiation to be at least an equivalent temperature. If, owing to vehicle configuration, this measurement is impractical, the establishment of the engine's normal operating temperature may be made by other means, for example by the operation of the engine-cooling fan.
      - (ii) Exhaust system shall be purged by at least three free acceleration cycles or by an equivalent method.
  - (c) Test procedure:
    - 2. Engine, and any turbo-charged fitted, to be at idle before the start of each free acceleration cycle. For heavy-duty diesels, this means waiting for at least 10 seconds after the release of the throttle.

- 3. To initiate each free acceleration cycle, the throttle pedal must be fully depressed quickly and continuously (in less than one second) but not violently, so as to obtain maximum delivery from the injection pump.
- 4. During each free acceleration cycle, the engine shall reach cut-off speed or, for vehicles with automatic transmissions, the speed specified by the manufacturer or if this data is not available then two thirds of the cut off speed, before the throttle is released. This could be checked, for instance by monitoring engine speed or by allowing a sufficient time to elapse between initial throttle depression and release, which in the case of vehicles in Categories 1 and 2 of Annex I, should be at least two seconds.

## (d) Limit values

- 1. The level of concentration must not exceed the level recorded on the plate pursuant to Directive 72/306/EEC.
- 2. Where this information is not available or where Member States' competent authorities decide not to use it as a reference, the level of concentration must not exceed the level stated by the manufacturer or the limit values of the coefficient of absorption that are as follows:

# Maximum coefficient of absorption for:

- naturally aspirated diesel engines = 2.5 m<sup>-1</sup>,
- turbo-charged diesel engines = 3.0 m<sup>-1</sup>
- a limit of 1.5 m<sup>-1</sup> shall apply to the following vehicles that have been type-approved according to the limit values shown in:
- (a) Row B of the table in Section 5.3.1.4. of Annex I to Directive 70/220/EEC, as amended by Directive 98/69/EC (Light Duty Vehicle Diesel Euro 4);
- (b) Row B1 of the tables in Section 6.2.1. of Annex I to Directive 88/77/EEC, as amended by Directive 1999/96/EC (Heavy Duty Vehicle Diesel Euro 4);
- (c) Row B2 of the tables in Section 6.2.1. of Annex I to Directive 88/77/EEC, as amended by Directive 1999/96/EC (Heavy Duty Vehicle Diesel Euro 5);
- (d) Row C of the tables in Section 6.2.1. of Annex I to Directive 88/77/EEC, as amended by Directive 1999/96/EC (Heavy Duty Vehicle EEV);
  - or limit values in later amendments of Directive 70/220/EEC as amended by Directive 98/69/EC, or limit values in later amendments of Directive 88/77/EEC as amended by Directive 1999/96/EC, or equivalent values where use is made of equipment of a type different from that used for EC type-approval.
  - Where identification to Section 5.3.1.4. of Annex I to Directive 70/220/EEC, as amended by Directive 98/69/EC or to Section 6.2.1. of Annex I to Directive 88/77/EEC, as amended by Directive 1999/96/EC is not possible then the above shall apply to vehicles registered or first put into service after July 1, 2008.
- 3. Vehicles registered or put into service for the first time before January 1, 1980 are exempted from these requirements.

- 4. Vehicles shall only be failed if the arithmetic means of at least the last three free acceleration cycles are in excess of the limit value. This may be calculated by ignoring any measurements that depart significantly from the measured mean, or the result of any other statistical calculation that takes account of the scattering of the measurements. Member States may limit the maximum number of test cycles.
- 5. To avoid unnecessary testing, Member States may, by way of exception from the provisions of Paragraph 8.2.2 (d)(4), fail vehicles which have measured values significantly in excess of the limit values after less than three free acceleration cycles or after the purging cycles (or equivalent) specified in sub-paragraph 8.2.2(b)2(ii). Equally to avoid unnecessary testing, Member States may, by way of exception from the provisions of 8.2.2(d)(4), pass vehicles which have measured values significantly below the limit values after less than three free acceleration cycles or after the purging cycles (or equivalent) specified in sub-paragraph 8.2.2(b)2(ii).

# 8.2.3. Test equipment

Vehicle emissions are tested using equipment designed to establish accurately whether the limit values prescribed or indicated by the manufacturer have been complied with.

- 8.2.4. Where, during EC type-approval, a type of vehicle is found not to have satisfied the limit values laid down by this Directive, the Member States may lay down higher limit values for that type of vehicle on the basis of proof supplied by the manufacturer. They must forthwith inform the Commission thereof and it in turn must inform the other Member States.
- C As the Directive is far more stringent, it is mandatory to replace the text of Rule No. 1 by the text of the Directive. However, it is necessary to replace the references to (tables of) other directives by references to similar Regulations.

#### A.4 Noise emissions

| ITEMS                    | PRINCIPAL REASONS FOR REJECTION                            |
|--------------------------|--|
| Noise suppression system | - missing (partially or completely) or seriously defective |

#### B Directive 96/96/EC

(Annex II, items to be compulsory tested, Cat. 1 and 2, item 8.1)

| 8.1. | Noise |  |
|------|-------|--|
|------|-------|--|

C Although the Directive and the Rule differ in text the same intention is meant.

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#### A.5. Other environment related items

## A.5.1 Other environment related items, fuel tanks and tubing

| ITEMS                 | PRINCIPAL REASONS FOR REJECTION |  |  |
|-----------------------|---------------------------------|--|--|
| Fuel tanks and tubing | - leaking                       |  |  |

#### B Directive 96/96/EC

(Annex II, items to be compulsory tested, Cat. 1 and 2, item 6.1.3)

| 6.                  | Chassis and chassis attachments                     |
|---------------------|---|
| <b>6</b> .1. 6.1.3. | Chassis or frame and attachments Fuel tank or pipes |

No specific requirements are included in the Directive.

C To make the text of Rule No. 1 acceptable to the EU (no requirements above the EU-requirements), the text of Rule No. 1 has to be deleted.

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## A.5.2 Other environment related items, engine and transmission

| ITEMS                   | PRINCIPAL REASONS FOR REJECTION |
|-------------------------|---------------------------------|
| Engine and transmission | - leaking                       |

#### B Directive 96/96/EC

No specific requirements are included in the Directive.

C To make the text of Rule No. 1 acceptable to the EU (no requirements above the EU-requirements), the text of Rule No. 1 has to be deleted.

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## A.5.3 Other environment related items, hydraulic braking system

| ITEMS                    | PRINCIPAL REASONS FOR REJECTION |  |  |
|--------------------------|---------------------------------|--|--|
| Hydraulic braking system | - leaking                       |  |  |

## B Directive 96/96/EC

(Annex II, items to be compulsory tested, Cat. 1 and 2, item 1)

| 1.     | Braking systems   |  |
|--------|---|--|
|        | Items to be checked/tested                              | Reasons for failure  |
| 1.1.5. | Hand-operated brake control valve                       | - connections loose or leak in system  |
| 1.1.7. | Braking valves (footvalves, unloaders, governors, etc.) | <ul> <li>excessive discharge of oil from compressor</li> <li>discharge of hydraulic brake fluid</li> </ul> |

| 1.1.8. Couplings for trailer brakes   | - excessive leaks                             |  |  |
|---|---|--|--|
| 1.1.9. Energy storage reservoir pressure tank                                 | - damaged, corroded, leaking                  |  |  |
| 1.1.10. Brake servo units, master cylinder (hvdraulic systems)                | - master cylinder defective or leaking        |  |  |
| 1.1.11. Rigid brake pipes   | - leaks from pipes or connections to coupling |  |  |
| 1.1.12. Flexible brake hoses  | - leaks from hoses or couplings               |  |  |
| 1.1.16. Brake actuators (including spring brakes or hydraulic wheel cylinder) | - leaking                                     |  |  |

C The text of Rule No. 1 and the Directive have the same purpose, therefore it is recommended to adopt the present wording of Rule No. 1

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## A.5.4 Other environment related items, power steering

| ITEMS          | PRINCIPAL REASONS FOR REJECTION |  |  |  |
|----------------|---------------------------------|--|--|--|
| Power steering | - leaking                       |  |  |  |

# B Directive 96/96/EC

No specific requirements are included in the Directive.

C To make the text of Rule No. 1 acceptable to the EU (no requirements above the EU-requirements), the text of Rule No. 1 has to be deleted.

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#### A.5.5 Other environment related items, additional hydraulic units

| ITEMS                      | PRINCIPAL REASONS FOR REJECTION |
|----------------------------|---------------------------------|
| Additional hydraulic units | - leaking                       |

## B Directive 96/96/EC

No specific requirements are included in the Directive.

C To make the text of Rule No. 1 acceptable to the EU (no requirements above the EU-requirements), the text of Rule No. 1 has to be deleted.

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## A.5.6 Other environment related items, battery

| ITEMS   | PRINCIPAL REASONS FOR REJECTION |  |  |
|---------|---------------------------------|--|--|
| Battery | - leaking                       |  |  |

#### B Directive 96/96/EC

No specific requirements are included in the Directive.

C To make the text of Rule No. 1 acceptable to the EU (no requirements above the EU-requirements), the text of Rule No. 1 has to be deleted.

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## A.5.7 Other environment related items, air-conditioning and refrigeration system

| ITEMS                                     | PRINCIPAL REASONS FOR REJECTION |  |  |
|---|---------------------------------|--|--|
| Air conditioning and refrigeration system | - leaking of the cooling medium |  |  |

## B Directive 96/96/EC

No specific requirements are included in the Directive.

C To make the text of Rule No. 1 acceptable to the EU (no requirements above the EU-requirements), the text of Rule No. 1 has to be deleted.

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#### **Summary of conclusions**

In the following table the conclusions are summarised.

In the column 96/96 the relevant item number is mentioned of Directive 96/96/EC, Annex II. In the column "C" the conclusion is given with the following meaning:

| _ | comp. | : text of Directive and Rule No. 1 are comparable   |
|---|-------|---|
|   | comp. | . test of Directive and Itale 110. I are comparable |

- repl. : text of Rule No. 1 should be replaced by text of Directive

- repl. 1) : text of Rule No. 1 should be replaced by text of Directive. However, it is necessary

to replace the references to (tables of) other directives by references to similar

Regulations.

- delete : text of Rule No. 1 should be deleted in order to make Rule No. 1 comparable with

the Directive for that particular subject.

| A         | Rule No. 1   | 96/96 | "C"                 |
|-----------|--|-------|---------------------|
| A.2       | The identification of the vehicle"   |       |                     |
| A.2.1     | The identification of the vehicle, registration number plates              | 10.1  | comp.               |
| A.2.2     | The identification of the vehicle, identification (serial) number          | 10.2  | comp.               |
| A.3.1     | Exhaust emissions  |       | •                   |
| A.3.1.1   | Exhaust emissions, positive-ignition engines                               |       |                     |
| A.3.1.1.1 | Exhaust emissions, positive-ignition engines, exhaust system               | 8.2.1 | repl.               |
| A.3.1.1.2 | Exhaust emissions, positive-ignition engines, CO, no advanced control      | 8.2.1 | repl.               |
| A.3.1.1.3 | Exhaust emissions, positive-ignition engines, CO, advanced control         | 8.2.1 | repl.1)             |
| A.3.1.2   | Exhaust emissions, compression ignition engines                            |       |                     |
| A.3.1.2.1 | Exhaust emissions, compression ignition engines, exhaust system            | 8.2.2 | comp.               |
| A.3.1.2.2 | Exhaust emissions, compression ignition engines, smoke                     | 8.2.2 | repl. <sup>1)</sup> |
| A.4       | Noise emissions  | 8.1   | comp.               |
| A.5.      | Other environment related items  |       |                     |
| A.5.1     | Other environment-related items, fuel tanks and tubing                     | -     | delete              |
| A.5.2     | Other environment related items, engine and transmission                   | -     | delete              |
| A.5.3     | Other environment related items, hydraulic braking system                  | 1     | comp.               |
| A.5.4     | Other environment-related items, power steering                            | -     | delete              |
| A.5.5     | Other environment-related items, additional hydraulic units                | -     | delete              |
| A.5.6     | Other environment-related items, battery                                   | -     | delete              |
| A.5.7     | Other environment related items, air-conditioning and refrigeration system | -     | delete              |

#### Remaining items in Directive 96/96/EC over and above the existing Rule No. 1.

Additional requirements in Directive 96/96/EC, Annex II not yet covered in Rule No. 1 are:

Item 2 : Steering and steering wheel

Item 3 : Visibility

Item 4 : Lamps, reflectors and electrical equipment

Item 5 : Axles, wheels, tyres, suspension Item 6 : Chassis and chassis attachments

Item 7 : Other equipment

Item 8.3 : Suppression of radio interference

Item 9 : Supplementary tests for public transport vehicles

#### PROPOSAL FOR AMENDMENT OF RULE NO. 1.

It is recommended to adopt the text of the present Rule No. 1 for those items which are comparable.

THE EASIEST WAY TO COPE WITH THE REQUIREMENTS OF THE EU, AS FAR AS EXHAUST EMMISSION IS CONCERNED, IS TO REPLACE THE TECHNICAL CONTENT OF RULE NO. 1 WITH THE CONSOLIDATED VERSION OF DIRECTIVE 96/96/EC AS AMENDED BY THE DIRECTIVES 1992/52/EC, 2001/9/EC, 2001/11/EC AND 2003/27/EC.

References in Directive 96/96/EC to other Directives shall be substituted by references to equivalent Regulations

A PROPOSAL FOR THE TEXT OF RULE NO. 1, REVISION 1, VERSION A, IS ATTACHED AS ANNEX 1 TO THIS DOCUMENT.

\* \* \*

# **QUESTION FOR GRPE:**

SINCE THE SCOPE OF RULE NO. 1 IS LIMITED TO N2, N3, M2 AND M3 VEHICLES USED FOR INTERNATIONAL TRANSPORT, WHICH VEHICLES ARE, WITHOUT EXCEPTION, EQUIPPED WITH COMPRESSION IGNITION (DIESEL) ENGINES, IT SEEMS UNNECESSARY TO INCLUDE REQUIREMENTS FOR POSITIVE-IGNITION (PETROL) ENGINES IN THE REVISION OF RULE NO. 1.

It is not needed to take gas-engines into consideration because gas-engines are not included in rule 1 and directive 96/96. Furthermore gas-engines are not used for international transport.

GRPE IS ASKED TO ADVISE WHETHER THIS RECOMMENDATION SHOULD BE ADDRESSED TO WP.29 / AC.4.

A PROPOSAL FOR THE TEXT OF RULE NO. , REVISION 1, VERSION B (COMPRESSION IGNITION ENGINES ONLY) IS ATTACHED AS ANNEX 2 TO THIS DOCUMENT.

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