

## COMMISSION DIRECTIVE 97/21/EC

of 18 April 1997

adapting to technical progress Council Directive 80/1269/EEC on the approximation of the laws of the Member States relating to the engine power of motor vehicles

(Text with EEA relevance)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

HAS ADOPTED THIS DIRECTIVE:

Having regard to the Treaty establishing the European Community,

*Article 1*

Having regard to Council Directive 80/1269/EEC of 16 December 1980 on the approximation of the laws of the Member States relating to the engine power of motor vehicles<sup>(1)</sup>, as last amended by Commission Directive 89/491/EEC<sup>(2)</sup>, and in particular Article 3 thereof,

Directive 80/1269/EEC is hereby amended as follows:

1. Article 1 is replaced by the following:

*'Article 1*

Whereas Directive 80/1269/EEC is one of the separate directives in the EC type-approval procedure established by 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<sup>(3)</sup>, as last amended by Directive 96/79/EC of the European Parliament and of the Council<sup>(4)</sup>; whereas, consequently, the provisions laid down in Directive 70/156/EEC relating to vehicle systems, components and separate technical units apply to Directive 80/1269/EEC;

For the purposes of this Directive, "vehicle" means any motor vehicle intended for use on the road, with or without bodywork, having at least four wheels and a maximum design speed exceeding 25 km/h, with the exception of vehicles which run on rails and of agricultural and forestry tractors and all mobile machinery.;

2. in Article 2, 'Annexes I and II' is replaced by 'the relevant Annexes';
3. the Annexes are amended in accordance with the Annex to this Directive.

Whereas, in particular, pursuant to Article 3 (4) and Article 4 (3) of Directive 70/156/EEC it is necessary that each separate Directive has attached to it an information document incorporating the relevant items of Annex I to Directive 70/156/EEC and also a type-approval certificate based on Annex VI to Directive 70/156/EEC in order that type-approval may be computerized;

*Article 2*

Whereas these amendments relate only to the administrative provisions contained in Directive 80/1269/EEC; whereas it is not necessary therefore to invalidate existing approvals pursuant to Directive 80/1269/EEC nor to prevent the registration, sale and entry into service of new vehicles covered by such approvals;

With effect from 1 October 1997, Member States:

- shall no longer grant EC type-approval pursuant to Article 4 (1) of Directive 70/156/EEC, and
- may refuse national type-approval,

for a new type of vehicle on grounds relating to the engine power if the engine power has not been determined in accordance with Directive 80/1269/EEC, as amended by this Directive.

Whereas the measures provided for in this Directive are in accordance with the opinion of the Committee for Adaptation to Technical Progress established by Directive 70/156/EEC,

This Directive shall not invalidate any approval previously granted pursuant to Directive 80/1269/EEC nor prevent extensions of such approvals under the terms of the directive under which they were originally granted.

<sup>(1)</sup> OJ No L 375, 31. 12. 1980, p. 46.

<sup>(2)</sup> OJ No L 238, 15. 8. 1989, p. 43.

<sup>(3)</sup> OJ No L 42, 23. 2. 1970, p. 1.

<sup>(4)</sup> OJ No L 18, 21. 1. 1997, p. 7.

*Article 3*

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 30 September 1997. They shall forthwith inform the Commission thereof.

When Member States adopt these provisions, these shall contain a reference to this Directive or shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be adopted by Member States.

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

*Article 4*

This Directive shall enter into force on the 20th day following its publication in the *Official Journal of the European Communities*.

*Article 5*

This Directive is addressed to the Member States.

Done at Brussels, 18 April 1997.

*For the Commission*  
Martin BANGEMANN  
*Member of the Commission*

## ANNEX

## AMENDMENTS TO THE ANNEXES TO DIRECTIVE 80/1269/EEC

1. A list of Annexes is inserted between the Articles and Annex I to read as follows:

## 'LIST OF ANNEXES

**Annex I:** Determination of engine power

*Appendix 1:* Information document

*Appendix 2:* Type-approval certificate

**Annex II:** Test report'

## ANNEX I

2. Item 1 reads as follows:

## '1. ADMINISTRATIVE PROVISIONS FOR TYPE-APPROVAL

## 1.1. Application for EC type-approval of a vehicle type

1.1.1. The application for EC type-approval pursuant to Article 3 (4) of Directive 70/156/EEC of a vehicle type with regard to its engine power shall be submitted by the manufacturer.

1.1.2. A model for the information document is given in Appendix 1.

1.1.3. If the technical service responsible for the type-approval tests carries out the test itself, the following must be submitted:

1.1.3.1. an engine representative of the type to be approved together with the auxiliary equipment specified in Table 1.

## 1.2. Granting of EC type-approval of a vehicle type

1.2.1. If the relevant requirements are satisfied, EC type-approval pursuant to Article 4 (3) and, if applicable, Article 4 (4) of Directive 70/156/EEC shall be granted.

1.2.2. A model for the EC type-approval certificate is given in Appendix 2.

1.2.3. 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.

## 1.3. Modifications of the type and amendments to approvals

1.3.1. 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.

## 1.4. Conformity of production

1.4.1. 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.'

3. In item 2.1:

'Annex I' is replaced by 'Annex II Section A'.

4. In item 5.6:

'Appendix I' is replaced by 'Annex II'.

5. In item 6.4.2 the formula reads as follows:

$$\alpha_d = (f_a)^{fm}$$

6. Item 7 reads as follows:

'7. TEST REPORT

The test report shall contain the results and all the calculations required to determine the net power, as listed in Annex II. In order to draw up this document, the competent authority may use the report prepared by an approved or recognized laboratory pursuant to the provisions of this Directive.'

7. Items 8 to 8.2.2 are deleted.
8. Items 9 to 9.2 become items 8 to 8.2.
9. Appendices 1 and 2 are replaced by the following Appendices 1 and 2:

*'Appendix 1*

INFORMATION DOCUMENT No. ...

pursuant to Annex I to Council Directive 70/156/EEC(\*) relating to EC type-approval of a vehicle with respect to the engine power

*(Directive 80/1269/EEC, as last amended by Directive .../.../EEC)*

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 on a 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<sup>(b)</sup>: .....
- 0.3.1. Location of that marking: .....
- 0.4. Category of vehicle<sup>(c)</sup>: .....
- 0.5. Name and address of manufacturer: .....
- 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: .....
- 1.8. Hand of drive: left/right<sup>(1)</sup>: .....

(\*) 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.

- 3. POWER PLANT<sup>(9)</sup>
  - 3.1. Manufacturer: .....
  - 3.1.1. Manufacturer's engine code (as marked on the engine, or other means of identification): .....
  - 3.2.1.1. Working principle: positive ignition/compression ignition, four stroke/two stroke<sup>(1)</sup>
  - 3.2.1.2. Number and arrangement of cylinders: .....
  - 3.2.1.2.1. Bore<sup>(1)</sup>: ..... mm
  - 3.2.1.2.2. Stroke<sup>(1)</sup>: ..... mm
  - 3.2.1.2.3. Firing order: .....
  - 3.2.1.3. Engine capacity<sup>(3)</sup>: ..... cm<sup>3</sup>
  - 3.2.1.4. Volumetric compression ratio<sup>(2)</sup>: .....
  - 3.2.1.5. Drawings of combustion chamber, piston crown and, in the case of positive ignition engines, piston rings: .....
  - 3.2.1.8. Maximum net power<sup>(1)</sup>: ..... kW at ..... min<sup>-1</sup>  
(manufacturer's declared value)
  - 3.2.1.9. Maximum permitted engine speed as prescribed by the manufacturer: ..... min<sup>-1</sup>
  - 3.2.1.10. Maximum net torque<sup>(1)</sup>: ..... Nm at ..... min<sup>-1</sup>  
(manufacturer's declared value)
  - 3.2.2. Fuel: diesel oil/petrol/LPG/any other<sup>(1)</sup>
    - 3.2.2.1. RON, leaded: .....
    - 3.2.2.2. RON, unleaded: .....
    - 3.2.4. Fuel feed
      - 3.2.4.1. By carburettor(s): yes/no<sup>(1)</sup>
        - 3.2.4.1.1. Make(s): .....
        - 3.2.4.1.2. Type(s): .....
        - 3.2.4.1.3. Number fitted: .....
        - 3.2.4.1.4. Adjustments<sup>(2)</sup>
          - 3.2.4.1.4.1. Jets: .....
          - 3.2.4.1.4.2. Venturis: .....
          - 3.2.4.1.4.3. Float-chamber level: .....
          - 3.2.4.1.4.4. Mass of float: .....
          - 3.2.4.1.4.5. Float needle: .....
    - 3.2.4.1.5. Cold start system: manual/automatic<sup>(1)</sup>
      - 3.2.4.1.5.1. Operating principle(s): .....
      - 3.2.4.1.5.2. Operating limits/settings<sup>(1)</sup><sup>(2)</sup>: .....
    - 3.2.4.2. By fuel injection (compression ignition only): yes/no<sup>(1)</sup>
      - 3.2.4.2.1. System description: .....
      - 3.2.4.2.2. Working principle: direct injection/pre-chamber/swirl chamber<sup>(1)</sup>
        - 3.2.4.2.3. Injection pump
          - 3.2.4.2.3.1. Make(s): .....
          - 3.2.4.2.3.2. Type(s): .....
          - 3.2.4.2.3.3. Maximum fuel delivery<sup>(1)</sup><sup>(2)</sup>: ..... mm<sup>3</sup>/stroke or cycle at a pump speed of: ..... min<sup>-1</sup> or, alternatively, a characteristic diagram: .....
          - 3.2.4.2.3.4. Injection timing<sup>(2)</sup>: .....
          - 3.2.4.2.3.5. Injection advance curve<sup>(2)</sup>: .....
        - 3.2.4.2.3.6. Calibration procedure: test bench/engine<sup>(1)</sup>
      - 3.2.4.2.4. Governor
        - 3.2.4.2.4.1. Type: .....
        - 3.2.4.2.4.2. Cut-off point
          - 3.2.4.2.4.2.1. Cut-off point under load: ..... min<sup>-1</sup>
          - 3.2.4.2.4.2.2. Cut-off point without load: ..... min<sup>-1</sup>

Or the curve of fuel delivery plotted against the air flow and settings required to keep to the curve

3.2.4.2.5.	Injection piping	
3.2.4.2.5.1.	Length: .....	mm
3.2.4.2.5.2.	Internal diameter: .....	mm
3.2.4.2.6.	Injector(s)	
3.2.4.2.6.1.	Make(s): .....	
3.2.4.2.6.2.	Type(s): .....	
3.2.4.2.6.3.	Opening pressure <sup>(2)</sup> : .....	kPa or characteristic diagram <sup>(2)</sup> : .....
3.2.4.2.7.	Cold start system	
3.2.4.2.7.1.	Make(s): .....	
3.2.4.2.7.2.	Type(s): .....	
3.2.4.2.7.3.	Description: .....	
3.2.4.2.9.	Electronic control unit	
3.2.4.2.9.1.	Make(s): .....	
3.2.4.2.9.2.	Description of the system: .....	
3.2.4.3.	By fuel injection (positive ignition only): yes/no <sup>(1)</sup>	
3.2.4.3.1.	Working principle: intake manifold (single-/multi-point <sup>(1)</sup> ) direct injection/other (specify) <sup>(1)</sup> : .....	
3.2.4.3.2.	Make(s): .....	
3.2.4.3.3.	Type(s): .....	
3.2.4.3.4.	System description	
3.2.4.3.4.1.	Type or number of the control unit: ...	} In the case of systems other than continuous injection give equivalent details.
3.2.4.3.4.2.	Type of fuel regulator: .....	
3.2.4.3.4.3.	Type of air-flow sensor: .....	
3.2.4.3.4.4.	Type of fuel distributor: .....	
3.2.4.3.4.5.	Type of pressure regulator: .....	
3.2.4.3.4.8.	Type of throttle housing: .....	
3.2.4.3.5.	Injectors: opening pressure <sup>(2)</sup> : .....	kPa or characteristic diagram <sup>(2)</sup> : .....
3.2.4.3.6.	Injection timing: .....	
3.2.4.3.7.	Cold start system	
3.2.4.3.7.1.	Operating principle(s): .....	
3.2.4.3.7.2.	Operating limits/settings <sup>(1)</sup> <sup>(2)</sup> : .....	
3.2.4.4.	Feed pump	
3.2.4.4.1.	Pressure <sup>(2)</sup> : .....	kPa or characteristic diagram <sup>(2)</sup> : .....
3.2.5.	Electrical system	
3.2.5.1.	Rated voltage: .....	V, positive/negative ground <sup>(1)</sup>
3.2.5.2.	Generator	
3.2.5.2.1.	Type: .....	
3.2.5.2.2.	Nominal output: .....	VA
3.2.6.	Ignition	
3.2.6.1.	Make(s): .....	
3.2.6.2.	Type(s): .....	
3.2.6.3.	Working principle: .....	
3.2.6.4.	Ignition advance curve <sup>(2)</sup> : .....	
3.2.6.5.	Static ignition timing <sup>(2)</sup> : .....	degrees before TDC
3.2.6.6.	Contact-point gap <sup>(2)</sup> : .....	mm
3.2.6.7.	Dwell-angle <sup>(2)</sup> : .....	degrees
3.2.7.	Cooling system (liquid/air) <sup>(1)</sup>	
3.2.7.1.	Nominal setting of the engine temperature control mechanism: .....	
3.2.7.2.	Liquid	
3.2.7.2.1.	Nature of liquid: .....	
3.2.7.2.2.	Circulating pump(s): yes/no <sup>(1)</sup>	
3.2.7.2.3.	Characteristics .....	, or
3.2.7.2.3.1.	Make(s): .....	
3.2.7.2.3.2.	Type(s): .....	

3.2.7.2.4.	Drive ratio(s): .....
3.2.7.2.5.	Description of the fan and its drive mechanism: .....
3.2.7.3.	Air
3.2.7.3.1.	Blower: yes/no <sup>(1)</sup>
3.2.7.3.2.	Characteristics: ....., or
3.2.7.3.2.1.	Make(s): .....
3.2.7.3.2.2.	Type(s): .....
3.2.7.3.3.	Drive ratio(s): .....
3.2.8.	Intake system
3.2.8.1.	Pressure charger: yes/no <sup>(1)</sup>
3.2.8.1.1.	Make(s): .....
3.2.8.1.2.	Type(s): .....
3.2.8.1.3.	Description of the system (e.g. maximum charge pressure: ..... kPa, wastegate if applicable): .....
3.2.8.2.	Intercooler: yes/no <sup>(1)</sup>
3.2.8.4.	Description and drawings of inlet pipes and their accessories (plenum chamber, heating device, additional air intakes, etc.): .....
3.2.8.4.1.	Intake manifold description (include drawings and/or photos): .....
3.2.8.4.2.	Air filter, drawings: ....., or
3.2.8.4.2.1.	Make(s): .....
3.2.8.4.2.2.	Type(s): .....
3.2.8.4.3.	Intake silencer, drawings: ....., or
3.2.8.4.3.1.	Make(s): .....
3.2.8.4.3.2.	Type(s): .....
3.2.9.	Exhaust system
3.2.9.1.	Description and/or drawing of the exhaust manifold: .....
3.2.9.2.	Description and/or drawing of the exhaust system: .....
3.2.9.3.	Maximum allowable exhaust back pressure at rated engine speed and at 100 % load: ..... kPa
3.2.10.	Minimum cross-sectional areas of inlet and outlet ports: .....
3.2.11.	Valve timing or equivalent data
3.2.11.1.	Maximum lift of valves, angles of opening and closing, or timing details of alternative distribution systems, in relation to dead-centres: .....
3.2.11.2.	Reference and/or setting ranges <sup>(1)</sup> : .....
3.2.12.	Measures taken against air pollution
3.2.12.2.	Additional anti-pollution devices (if any, and if not covered by another heading)
3.2.12.2.1.	Catalytic converter: yes/no <sup>(1)</sup>
3.2.12.2.1.1.	Number of catalytic converters and elements: .....
3.2.12.2.1.2.	Dimensions, shape and volume of the catalytic converter(s): .....
3.2.12.2.2.	Oxygen sensor: yes/no <sup>(1)</sup>
3.2.12.2.3.	Air injection: yes/no <sup>(1)</sup>
3.2.12.2.4.	Exhaust gas recirculation: yes/no <sup>(1)</sup>
3.2.12.2.6.	Particulate trap: yes/no <sup>(1)</sup>
3.2.12.2.6.1.	Dimensions, shape and capacity of the particulate trap: .....
3.2.12.2.7.	Other systems (description and operation): .....
3.6.	Temperatures permitted by the manufacturer
3.6.1.	Cooling system
3.6.1.1.	Liquid cooling
	Maximum temperature at outlet: ..... °C
3.6.1.2.	Air cooling
3.6.1.2.1.	Reference point: .....
3.6.1.2.2.	Maximum temperature at reference point: ..... °C
3.6.2.	Maximum outlet temperature of the inlet intercooler: ..... °C

- 3.6.3. Maximum exhaust temperature at the point in the exhaust pipe(s) adjacent to the outer flange(s) of the exhaust manifold: ..... °C
- 3.6.4. Fuel temperature
  - minimum: ..... °C
  - maximum: ..... °C
- 3.6.5. Lubricant temperature
  - minimum: ..... °C
  - maximum: ..... °C
- 3.8. Lubrication system
  - 3.8.1. Description of the system
    - 3.8.1.1. Position of the lubricant reservoir: .....
    - 3.8.1.2. Feed system (by pump/injection into intake/mixing with fuel, etc.)<sup>(1)</sup>: .....
  - 3.8.2. Lubricating pump
    - 3.8.2.1. Make(s): .....
    - 3.8.2.2. Type(s): .....
  - 3.8.3. Mixture with fuel
    - 3.8.3.1. Percentage: .....
  - 3.8.4. Oil cooler: yes/no<sup>(1)</sup>
    - 3.8.4.1. Drawing(s): ....., or
      - 3.8.4.1.1. Make(s): .....
      - 3.8.4.1.2. Type(s): .....

.....  
(Date, file)

<sup>(1)</sup> Delete where not applicable.

<sup>(2)</sup> 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??).

*Addendum to Appendix 1*

- 1. Other auxiliary equipment driven by the engine (as per item 5.1.2 of Annex I) (list and brief description if necessary): .....
- 2. Additional information on test conditions (for positive ignition engines only)
  - 2.1. Spark plugs
    - 2.1.1. Make: .....
    - 2.1.2. Type: .....
    - 2.1.3. Spark-gap setting: .....
  - 2.2. Ignition coil
    - 2.2.1. Make: .....
    - 2.2.2. Type: .....
  - 2.3. Ignition condenser
    - 2.3.1. Make: .....
    - 2.3.2. Type: .....
  - 2.4. Radio interference suppression equipment
    - 2.4.1. Make: .....
    - 2.4.2. Type: .....



## Appendix 2

## MODEL

(maximum format: A4 (210 × 297 mm))

## EC TYPE-APPROVAL CERTIFICATE

Stamp of administration
----------------------------

Communication concerning the

- type-approval<sup>(1)</sup>,
- extension of type-approval<sup>(1)</sup>,
- refusal of type-approval<sup>(1)</sup>,
- withdrawal of type-approval<sup>(1)</sup>,

of a type of a vehicle/component/separate technical unit<sup>(1)</sup> with regard to Directive . . . / . . . /EEC, 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<sup>(1)</sup><sup>(2)</sup>: .....
- 0.3.1. Location of that marking: .....
- 0.4. Category of vehicle<sup>(1)</sup><sup>(3)</sup>: .....
- 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 EC 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.

(<sup>1</sup>) Delete where not applicable.

(<sup>2</sup>) 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??).

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

*Addendum to EC type-approval certificate No ...*

*concerning the type-approval of a vehicle with regard to Directive 80/1269/EEC, as last amended by Directive .../.../EEC*

1. Additional information
  - 1.1. Engine .....
    - 1.1.1. Manufacturer's engine code: .....  
(as marked on the engine, or other means of identification)
    - 1.1.2. Engine capacity: .....
    - 1.1.3. Fuel: diesel oil/petrol/LPG/any other(<sup>1</sup>)
    - 1.1.4. Maximum net power: ..... kW at ..... min<sup>-1</sup>
  5. Remarks: .....

(<sup>1</sup>) Delete where not applicable.

*ANNEX II*

10. The entire text above item 1 is replaced by the new title 'TEST REPORT'.
11. Items 1 to 4 are deleted.
12. Items 5 and 6 become items 1 and 2 respectively.
13. Item 2.1 (former item 6.1):

In the table 'Power to be added ... (see Table 1, note 5)' is replaced by 'Power to be added for auxiliary equipment fitted on the engine in excess of Table 1 in Annex I (see item 1 in the Addendum to Appendix 1 of Annex I). Power to be subtracted when fan not fitted (see Table 1 in Annex I, note 5).'

14. Items 7 to 14 are deleted.