

Commission Regulation (EU) No 109/2011 of 27 January 2011 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council as regards type-approval requirements for certain categories of motor vehicles and their trailers as regards spray suppression systems (Text with EEA relevance)

Article 1	Scope
Article 2	Definitions
Article 3	EC type-approval of a vehicle with regard to spray suppression systems
Article 4	EC separate technical unit type-approval of spray suppression systems
Article 5	EC separate technical unit type-approval mark
Article 6	Validity and extension of approvals granted under Directive 91/226/EEC
Article 7	Entry into force Signature

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## ANNEX I

### ADMINISTRATIVE DOCUMENTS FOR EC TYPE-APPROVAL OF VEHICLES WITH REGARD TO THEIR SPRAY SUPPRESSION SYSTEMS

#### PART 1

##### Information document

##### MODEL

0. GENERAL
  - 0.1. Make (trade name of manufacturer):
  - 0.2. Type:
    - 0.2.1. Commercial name(s) (if available):
  - 0.3. Means of identification of type, if marked on the vehicle...
    - 0.3.1. Location of that marking:
  - 0.4. Category of vehicle(c):
  - 0.5. Name and address of manufacturer:
  - 0.8. Address(es) of assembly plant(s):
  - 0.9. Name and address of the manufacturer's representative (if any):
1. GENERAL CONSTRUCTION CHARACTERISTICS OF THE VEHICLE
  - 1.1. Photographs and/or drawings of a representative vehicle:
  - 1.3. Number of axles and wheels:
    - 1.3.1. Number and position of axles with twin wheels:
    - 1.3.2. Number and position of steered axles:
2. MASSES AND DIMENSIONS(f)(g)
  - 2.1. Wheelbase(s) (fully loaded)(g)(l):
  - 2.6. Mass in running order (maximum and minimum for each variant)...
    - 2.6.1. Distribution of this mass among the axles and, in the...
  - 2.8. Technically permissible maximum laden mass stated by the manufacturer(i)(3):

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## 9. BODYWORK

### 9.20. Spray-suppression system:

9.20.0. Presence: yes/no/incomplete(1):

9.20.1. Brief description of the vehicle with regard to its spray-suppression...

9.20.2. Detailed drawings of the spray-suppression system and its position on...

9.20.3. Approval number(s) of spray-suppression device(s), if available:

### PART 2

MODEL (maximum format: A4 (210 × 297 mm)) EC TYPE-APPROVAL...

MODEL (maximum format: A4 (210 × 297 mm)) EC TYPE-APPROVAL CERTIFICATE...EC TYPE-APPROVAL CERTIFICATE Stamp of approval authority  
Communication concerning: Delete...

### SECTION I

0.1. Make (trade name of manufacturer):

0.1. Make (trade name of manufacturer):

0.2. Type:

0.2.1. Commercial name(s) (if available):

0.3. Means of identification of type, if marked on the vehicle:...

0.3.1. Location of that marking:

0.4. Category of vehicle:

0.5. Name and address of manufacturer:

0.8. Name(s) and address(es) of assembly plant(s):

0.9. Name and address of the manufacturer's representative (if any):

### SECTION II

1. Additional information: see Addendum.

1. Additional information: 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...

### Addendum

to EC type-approval certificate No

1. Additional information

1.1. Characteristics of the spray suppression devices (type, brief description, trade...

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5. Remarks (if any):

ANNEX II

ADMINISTRATIVE DOCUMENTS FOR EC TYPE-APPROVAL OF  
SPRAY SUPPRESSION SYSTEMS AS SEPARATE TECHNICAL UNITS

PART 1

Information document

MODEL

0. GENERAL
  - 0.1. Make (trade name of manufacturer):
  - 0.2. Type:
  - 0.5. Name and address of manufacturer:
  - 0.7. In the case of components and separate technical units, location...
  - 0.8. Address(es) of assembly plant(s):
  - 0.9. Name and address of the manufacturer's representative (if any):
1. DESCRIPTION OF THE DEVICE
  - 1.1. A technical description of the spray suppression device indicating its...
  - 1.2. The materials used:
  - 1.3. Drawing(s) in sufficient detail and to an appropriate scale to...

PART 2

MODEL (maximum format: A4 (210 × 297 mm)) EC TYPE-APPROVAL...

MODEL (maximum format: A4 (210 × 297 mm)) EC TYPE-APPROVAL  
CERTIFICATE...EC TYPE-APPROVAL CERTIFICATE Stamp of approval authority  
Communication concerning: Delete...

SECTION I

0.1. Make (trade name of manufacturer)

- 0.1. Make (trade name of manufacturer)
- 0.2. Type:
- 0.3. Means of identification of type, if marked on the separate...
  - 0.3.1. Location of that marking:
- 0.5. Name and address of manufacturer:
- 0.7. Location and method of affixing of the EC approval mark:...
- 0.8. Name(s) and address(es) of assembly plant(s):
- 0.9. Name and address of the manufacturer's representative (if any):

SECTION II

1. Additional information (where applicable): see Addendum.

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.

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6. Place:
7. Date:
8. Signature:
9. The index to the information package lodged with the approval...

### PART 3

#### EC separate technical unit type-approval mark

1. The EC separate technical unit type-approval mark shall consist of:...
  - 1.1. A rectangle surrounding the lower-case letter 'e' followed by the...
  - 1.2. In the vicinity of the rectangle the 'base approval number'...
2. The EC separate technical unit type-approval mark shall be affixed...
3. An example of an EC separate technical unit type-approval mark...
 

Example of EC separate technical unit type-approval mark

Explanatory note

Legend The EC separate technical unit type-approval was issued by The...

### ANNEX III

#### PART 1

##### Requirements for spray suppression devices

0. GENERAL SPECIFICATIONS
  - 0.1. Spray-suppression devices must be constructed in such a way that...
1. TESTS TO BE CARRIED OUT
  - 1.1. Depending on their physical operating principle spray-suppression devices are subjected...
2. APPLICATION FOR EC COMPONENT TYPE-APPROVAL
  - 2.1. The application for EC component type-approval pursuant to Article 7...
  - 2.2. A model for the information document is set out in...
  - 2.3. The following shall be submitted to the technical service responsible...
  - 2.4. Markings
    - 2.4.1. Each sample must be clearly and indelibly marked with the...
    - 2.4.2. A symbol 'A' for devices of the energy-absorption type or...

#### PART 2

##### Tests on spray-suppression devices of the energy-absorber type

1. PRINCIPLE
2. EQUIPMENT
3. TEST CONDITIONS

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- 3.1. The tests must be carried out in a closed room...
  - 3.2. The ambient temperature and the temperature of the test pieces...
  - 3.3. De-ionised water is to be used.
  - 3.4. The test pieces must be prepared for each test by...
4. PROCEDURE
    - 4.1. Secure a 500 (+ 0/- 5) mm wide 750 mm...
    - 4.2. Set the water flow rate at 0,675 (+/- 0,01) l/s...
    - 4.3. Allow the water to trickle from the sample into the...
    - 4.4. Carry out the test five times on the sample according...
5. RESULTS
    - 5.1. The average percentage calculated in point 4.4 must be 70...
    - 5.2. If within a series of five tests the highest and...
    - 5.3. Test whether the vertical position of the device influences the...

### PART 3

#### Test on spray-suppression devices of the air/water separator type

1. PRINCIPLE
2. EQUIPMENT
3. TEST CONDITIONS
  - 3.1. The tests must be carried out in a closed room...
  - 3.2. The ambient temperature and the temperature of the test pieces...
  - 3.3. De-ionised water must be used.
  - 3.4. The test pieces must be prepared for each test by...
4. PROCEDURE
  - 4.1. Secure a 305 × 100 mm sample vertically in the...
  - 4.2. The pulveriser must be regulated as follows:
  - 4.3. Pulverise until there is no more water mist and note...
  - 4.4. Carry out the test five times and calculate the average...
5. RESULTS
  - 5.1. The average percentage calculated in point 4.4 must be 85...
  - 5.2. If within a series of five tests the highest and...
  - 5.3. Where the vertical position of the device influences the results...

### ANNEX IV

#### Requirements for type-approval of vehicles with regard to their spray suppression systems

0. GENERAL
  - 0.1. Category N and O vehicles, with the exception of off-road...
  - 0.2. The requirements of this Annex relating to spray-suppression devices, as...
1. A vehicle representative of the vehicle type to be approved,...

#### GENERAL REQUIREMENTS

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2. AXLES
  - 2.1. Retractable axles
  - 2.2. Self-tracking axles
3. POSITION OF OUTER VALANCE
4. STATE OF VEHICLE
5. SPRAY-SUPPRESSION SYSTEMS
  - 5.1. The spray-suppression system must meet the specifications set out in...
  - 5.2. The spray-suppression system for non-steered or self-steered wheels that are...

#### SPECIFIC REQUIREMENTS

6. Requirements concerning energy-absorption spray suppression systems for axles fitted with...
  - 6.1. Mudguards
    - 6.1.1. The mudguards must cover the zone immediately above, ahead and...
    - 6.1.2. The front side of the rear part of the mudguard...
    - 6.1.3. If the mudguards are made up of several components, when...
  - 6.2. Outer valances
    - 6.2.1. In the case of single axles, the lower edge of...
      - Air suspension:
      - Mechanical suspension
    - 6.2.2. In the case of multiple axles the requirements laid down...
    - 6.2.3. The distance between the uppermost and the lowermost points of...
    - 6.2.4. No openings enabling spray to emerge when the vehicle is...
    - 6.2.5. The requirements of points 6.2.3 and 6.2.4 may not be...
    - 6.2.6. Tractors for semi-trailers with a low chassis, namely those which...
  - 6.3. Rain flaps
    - 6.3.1. The width of the flap must fulfil the requirement for...
    - 6.3.2. The orientation of the flap must be basically vertical.
    - 6.3.3. The maximum height of the bottom edge must not exceed...
    - 6.3.4. The rain flap must not be more than 300 mm...
    - 6.3.5. In the case of multiple axles where distance d between...
    - 6.3.6. Rain flaps must not be deflected by more than 100...
    - 6.3.7. The whole of the front face of the part of...
    - 6.3.8. No openings enabling spray to emerge are allowed between the...
    - 6.3.9. Where the spray-suppression device meets the specifications relating to rain...
7. Requirements relating to spray-suppression systems fitted with energy-absorption spray-suppression devices...
  - 7.1. Mudguards
    - 7.1.1. Mudguards must cover the zone immediately above the tyre or...
    - 7.1.2. All of the inner rear part of the mudguard must...
  - 7.2. Outer valances
    - 7.2.1. In the case of single or multiple axles where the...
    - 7.2.2. No openings enabling spray to emerge are allowed between the...
    - 7.2.3. Where rain flaps are not fitted behind each wheel (see...
    - 7.2.4. The entire inner surface of the outer valance, the height...

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- 7.3. These flaps must extend to the lower part of the...
- 8. Requirements concerning spray-suppression systems fitted with air/water separator spray-suppression devices...
  - 8.1. Mudguards
    - 8.1.1. Mudguards must comply with the requirements of point 6.1.1(c).
    - 8.1.2. Mudguards for single or multiple axles where the distance between...
    - 8.1.3. In the case, of multiple axles where the distance between...
  - 8.2. Outer valances
    - 8.2.1. The lower edges of the outer valances must be fitted...
    - 8.2.2. In the case of single or multiple axles where the...
    - 8.2.3. In the case of multiple axles where the distance between...
    - 8.2.4. The depth of the outer valance must extend to not...
    - 8.2.5. No openings enabling spray to emerge are allowed in the...
  - 8.3. Rain flaps
    - 8.3.1. Rain flaps must:
    - 8.3.2. Spray suppression equipment complying with the specifications set out in...
      - 8.3.2.1. The lower edge of the spray-suppression device must be not...
      - 8.3.2.2. The spray-suppression device must be at least 100 mm deep....
      - 8.3.2.3. Apart from the lower part, which includes the spray-suppression device,...
    - 8.3.3. The rain flap must not be more than 200 mm...
- 9. In the case of multiple axles, the spray-suppression system of...

## ANNEX V

### Conformity of production and cessation of production

- 1. Conformity of production
  - 1.1. Any spray-suppression device bearing the EC component type-approval mark must...
  - 1.2. A type of device is defined by the model and...
  - 1.3. The manufacturer carries out routine checks in order to guarantee...
  - 1.4. The competent authorities may also conduct spot checks.
  - 1.5. Conformity of production with the type of device that has...
  - 1.6. Devices are deemed to conform if 9 out of 10...
  - 1.7. If the condition specified in point 1.6 is not satisfied,...
- 2. Cessation of production

## ANNEX VI

### FIGURES

**Changes to legislation:** There are outstanding changes not yet made to Commission Regulation (EU) No 109/2011. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) [View outstanding changes](#)

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- (1) [OJ L 200, 31.7.2009, p. 1.](#)
- (2) [OJ L 263, 9.10.2007, p. 1.](#)
- (3) [OJ L 103, 23.4.1991, p. 5.](#)



### Changes to legislation:

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### Changes and effects yet to be applied to :

- Annex 1 Pt. 1 words substituted by [S.I. 2022/1273 reg. 63\(9\)\(a\)](#)
- Annex 1 heading words substituted by [S.I. 2022/1273 reg. 63\(9\)\(a\)](#)
- Annex 1 Pt. 2 words substituted by [S.I. 2022/1273 reg. 63\(9\)\(b\)\(i\)](#)
- Annex 1 Pt. 2 words substituted by [S.I. 2022/1273 reg. 63\(9\)\(b\)\(ii\)](#)
- Annex 1 Pt. 2 note words substituted by [S.I. 2022/1273 reg. 63\(9\)\(c\)](#)
- Annex 1 Pt. 2 Addendum heading words substituted by [S.I. 2022/1273 reg. 63\(9\)\(d\)](#)
- Annex 5 point 1.1 words substituted by [S.I. 2022/1273 reg. 63\(13\)\(a\)](#)
- Annex 5 point 1.2 words substituted by [S.I. 2022/1273 reg. 63\(13\)\(a\)](#)
- Annex 5 point 2 words substituted by [S.I. 2022/1273 reg. 63\(13\)\(a\)](#)
- Annex 5 point 1.1 words substituted by [S.I. 2022/1273 reg. 63\(13\)\(b\)](#)
- Annex 3 point 2 heading words substituted by [S.I. 2022/1273 reg. 63\(11\)\(a\)](#)
- Annex 3 point 2.1 words substituted by [S.I. 2022/1273 reg. 63\(11\)\(b\)\(i\)](#)
- Annex 3 point 2.1 words substituted by [S.I. 2022/1273 reg. 63\(11\)\(b\)\(ii\)](#)
- Annex 3 point 2.4.1 words substituted by [S.I. 2022/1273 reg. 63\(11\)\(c\)](#)
- Annex 3 point 2.4.2 words substituted by [S.I. 2022/1273 reg. 63\(11\)\(d\)](#)
- Annex 2 Pt. 3 point 1.1 substituted by [S.I. 2022/1273 reg. 63\(10\)\(d\)\(i\)](#)
- Annex 2 Pt. 3 point 3 image substituted by [S.I. 2022/1273 reg. 63\(10\)\(d\)\(ii\)](#)
- Annex 2 Pt. 3 point 3 words omitted by [S.I. 2022/1273 reg. 63\(10\)\(d\)\(iii\)](#)
- Annex 2 heading words substituted by [S.I. 2022/1273 reg. 63\(10\)\(a\)](#)
- Annex 2 words substituted by [S.I. 2022/1273 reg. 63\(10\)\(a\)](#)
- Annex 2 Pt. 1 point 000.7 words substituted by [S.I. 2022/1273 reg. 63\(10\)\(b\)\(i\)](#)
- Annex 2 Pt. 1 point 1.3 words substituted by [S.I. 2022/1273 reg. 63\(10\)\(b\)\(ii\)](#)
- Annex 2 Pt. 2 words substituted by [S.I. 2022/1273 reg. 63\(10\)\(c\)\(i\)](#)
- Annex 4 point 000.1 words substituted by [S.I. 2022/1273 reg. 63\(12\)](#)
- Art. 1 words substituted by [S.I. 2022/1273 reg. 63\(2\)](#)
- Art. 3 heading words substituted by [S.I. 2022/1273 reg. 63\(4\)\(a\)](#)
- Art. 3(1) words substituted by [S.I. 2022/1273 reg. 63\(4\)\(a\)](#)
- Art. 3(3) words substituted by [S.I. 2022/1273 reg. 63\(4\)\(b\)](#)
- Art. 3(3) words substituted by [S.I. 2022/1273 reg. 63\(4\)\(c\)\(i\)](#)
- Art. 3(3) words substituted by [S.I. 2022/1273 reg. 63\(4\)\(c\)\(ii\)](#)
- Art. 3(4) words substituted by [S.I. 2022/1273 reg. 63\(4\)\(b\)](#)
- Art. 4 heading words substituted by [S.I. 2022/1273 reg. 63\(5\)\(a\)](#)
- Art. 4(1) words substituted by [S.I. 2022/1273 reg. 63\(5\)\(a\)](#)
- Art. 4(2) words substituted by [S.I. 2022/1273 reg. 63\(5\)\(b\)\(i\)\(aa\)](#)
- Art. 4(2) words substituted by [S.I. 2022/1273 reg. 63\(5\)\(b\)\(i\)\(bb\)](#)
- Art. 4(2) words substituted by [S.I. 2022/1273 reg. 63\(5\)\(b\)\(ii\)](#)
- Art. 4(3) words substituted by [S.I. 2022/1273 reg. 63\(5\)\(c\)](#)
- Art. 5 words inserted by [S.I. 2022/1273 reg. 63\(6\)\(c\)](#)
- Art. 5 heading words substituted by [S.I. 2022/1273 reg. 63\(6\)\(a\)](#)
- Art. 5 words substituted by [S.I. 2022/1273 reg. 63\(6\)\(a\)](#)
- Art. 5 words substituted by [S.I. 2022/1273 reg. 63\(6\)\(b\)](#)
- Art. 6 words omitted by [S.I. 2022/1273 reg. 63\(7\)\(a\)](#)
- Art. 6 words substituted by [S.I. 2022/1273 reg. 63\(7\)\(b\)](#)

### Changes and effects yet to be applied to the whole legislation item and associated provisions

- Signature words omitted by [S.I. 2022/1273 reg. 63\(8\)](#)
- Annex 2 Pt. 2 s. 1 point 000.7 words substituted by [S.I. 2022/1273 reg. 63\(10\)\(c\)\(ii\)](#)

- Art. 2(11) words substituted by [S.I. 2022/1273 reg. 63\(3\)\(a\)](#)
- Art. 2(12) words substituted by [S.I. 2022/1273 reg. 63\(3\)\(b\)](#)
- Art. 2(13) words substituted by [S.I. 2022/1273 reg. 63\(3\)\(c\)](#)
- Art. 2(15) words substituted by [S.I. 2022/1273 reg. 63\(3\)\(d\)](#)
- Art. 2(16) words substituted by [S.I. 2022/1273 reg. 63\(3\)\(e\)](#)