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**Economic Commission for Europe**

Inland Transport Committee

**Working Party on the Transport of Dangerous Goods**

**Joint Meeting of the RID Committee of Experts and the  
Working Party on the Transport of Dangerous Goods**

Bern, 12 – 16 March 2018

Item 2 of the provisional agenda

**Tanks**

Template for Chapter 6.8 tank plates

Transmitted by the Government of the United Kingdom[[1]](#footnote-2)\*

|  |
| --- |
| *Summary* |
| **Executive summary:** To propose templates for marking of Chapter 6.8 tanks – fixed tanks (tank-vehicles), demountable tanks and tank containers and tank swap bodies, with shells made of metallic materials and battery-vehicles and multiple element gas containers (MEGCs) |
| **Related documents:** Informal document INF.11 from the September 2017 session(United Kingdom) Template of a tank plate for RID/ADR tanks for the transport of dangerous goods  ECE/TRANS/WP.15/AC.1/148/Add.2Report of the Working Group on Tanks |
|  |

Introduction

1. At the autumn 2017 session of the Joint Meeting, the United Kingdom presented a proposal in informal document INF.11 to align Chapter 6.8 with the principles of Chapter 6.7 in respect of templates for tank plates. The concept carried the support in principle of the informal working group on inspection and certification of tanks that took place 6-8 June 2017. The United Kingdom agreed to prepare an informal document for consideration at the autumn 2017 session of the Joint Meeting.

2. Accordingly, informal document INF.11 was discussed at the working group on tanks that was held in parallel to the Joint Meeting in Geneva 19-21 September 2017. The representatives of the working group made a series of recommendations that were to be incorporated into the draft template and be submitted as a formal document for consideration at the spring 2018 session of the Joint Meeting in Bern.

3. The recommendations from the representatives at tanks working group were as follows:

* The format would be mandatory for new tanks only;
* The information required in 6.8.2.5.2 should not be included;
* The lines should be numbered and only lines applicable to a type of tank may be used, therefore it would be necessary to have five separate plates and that Class 2 goods should be separated from all other classes;
* A table should be included to set out the meaning of the numbered line;
* A list of applicable line numbers per tank type should be included;
* The inspection must be stamped on the plate in the sequence of stamp of the expert, mmyy followed by the letter “L” or “P” as applicable;
* The tank plate may consist of two separate parts; one for tank information and one for marking the inspections; and
* The tank serial number and initial hydraulic test date must be marked on the tank behind the plate for reference in case the plate is lost.

4. Subsequently, the United Kingdom prepared a draft working paper for discussion at the informal working group on inspection and certification of tanks held 12-14 December in London. The United Kingdom had found some inconsistencies between the current requirements of ADR 6.8.2.5.1 and 6.8.2.5.2; ADR Figures 6.7.3.16.1, 6.7.4.15.1 and 6.7.5.13.1; and EN 12972:2007 Annexes D (informative) and E (normative). It was the concern of the United Kingdom that if some of the information in 6.8.2.5.2 was not taken into account then the information available for certain tanks might not be sufficient.

5. During the discussion at the informal working group some helpful comments were made which will be incorporated into an informal document prior to the spring 2018 session.

Proposal

New text in bold, deleted text stricken through.

**[1.6.1.XX Fixed tanks (tank vehicles), demountable tanks, tank containers, tank swap bodies, battery vehicles and multi-element gas containers (MEGCs) manufactured according to Chapter 6.8 after 30 June 2019 are required to meet the marking requirements for tank plates in accordance with 6.8.2.5.1 and 6.8.2.5.2 according to the provisions of ADR applicable as from 1 January 2019. Tanks manufactured prior to this date are required to meet the requirements of 6.8.2.5.1 and 6.8.2.5.2 that were applicable at the time of manufacture.]**

6.8.2.5.1 Every tank shall be fitted with a corrosion-resistant metal plate permanently attached to the tank in a place readily accessible for inspection. The following particulars at least shall be marked on the plate by stamping or by any other similar method. These particulars may be engraved directly on the walls of the shell itself, if the walls are so reinforced that the strength of the shell is not impaired[[2]](#footnote-3)13:

- approval number;

- **[authorised body for approval;]**

- manufacturer’s name or mark;

- manufacturer’s serial number;

- year of manufacture;

- **[country of manufacture;]**

**- [shell design code / pressure vessel code;]**

- test pressure (gauge pressure);

- external design pressure (see 6.8.2.1.7);

- capacity of the shell – in the case of multiple-compartment shells, the capacity of each compartment –, followed by the symbol "S" when the shells or the compartments of more than 7 500 litres are divided by surge plates into sections of not more than 7 500 litres capacity;

**- [number of compartments;]**

- design temperature (only if above +50 ºC or below -20 ºC);

- **[design temperature range (6.8.2.1.8);]**

- date and type of the most recent test: "month, year" followed by a "P" when the test is the initial test or a periodic test in accordance with 6.8.2.4.1 and 6.8.2.4.2, or "month, year" followed by an "L" when the test is an intermediate leakproofness test in accordance with 6.8.2.4.3;

- stamp of the expert who carried out the tests;

- material of the shell and reference to materials standards, if available and, where appropriate, the protective lining;

- **[method of insulation, if applicable;]**

**- [for the substances according to 4.3.4.1.3, the proper shipping name of the substance(s) accepted for carriage;]**

- **[equivalent thickness in reference steel (see 6.8.2.1.18);]**

|  |  |  |
| --- | --- | --- |
|  | -test pressure on the shell as a whole and test pressure by compartment in MPa or bar (gauge pressure) where the pressure by compartment is less than the pressure on the shell. |  |
|  |  | - **[tare mass;]**  - **[maximum permissible gross mass;]** |

In addition, the maximum working pressure allowed shall be inscribed on pressure-filled or pressure-discharge tanks.

**For all tanks, the tank serial number and initial hydraulic test date shall be marked on the tank behind the plate for reference in case the plate is lost.**

**For convenience of size and positioning, a separate corrosion-resistant metal plate may be attached to the tank for the additional information in respect of intermediate and periodic inspections. This plate should be placed in close proximity to the main plate. If this additional plate is not necessary then the details of the intermediate and periodic inspections shall be added to the bottom of the main plate.**

Figure 6.8.2.5.1a: Example of a plate for marking for fixed tanks (tank vehicles) and demountable tanks for the transport of dangerous goods of Classes 1 and 3 to 9

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Manufacturer | |  | | | | | | | | | | | | |
| 2 | Manufacturer’s serial number | |  | | | | | | | | | | | | |
| 3 | Year of manufacture | |  | | | | | | | | | | | | |
| 4 | Country of manufacture | |  | | | | | | | | | | | | |
| 5 | Type approval number | |  | | | | | | | | | | | | |
| 6 | Authorised body for approval | |  | | | | | | | | | | | | |
| 7 | Shell design code (pressurevessel code) | |  | | | | | | | | | | | | |
| 8 | Test Pressure (gauge) | | 1. whole tank | | | | | | | MPa | | | | | |
|  | 1. compartments | | | | | | | MPa | | | | | |
| 9 | Maximum working pressure | | MPa | | | | | | | | | | | | |
| 10 | External design pressure | | MPa | | | | | | | | | | | | |
| 11 | Design temperature | | °C | | | | | | | | | | | | |
| 12 | Design temperature range | | °C | | | | | | to | | | °C | | | |
| 13 | Capacity of tank/shell (total) | | litres | | | | | | | | | | | | S |
| 14 | Number of compartments | |  | | | | | | | | | | | | |
| 15 | Capacity of the compartments | | l | | | l | | | | | l | | | l | |
|  |  | | l | | | l | | | | | l | | | l | |
| 16 | Tank material and material reference | |  | | | | | | | | | | | | |
| 17 | Equivalent thickness in reference steel | | mm | | | | | | | | | | | | |
| 18 | Material protective lining/coating | |  | | | | | | | | | | | | |
| 19 | Insulation | |  | | | | | | | | | | | | |
| 20 | Name of dangerous good(s) | | 21 | Maximum mass | 22 | | Maximum filling pressure | | | | | 23 | Filling temperature | | |
|  |  | | kg | | MPa | | | | | | | °C | | | |
|  |  | |  | |  | | | | | | |  | | | |
|  |  | |  | |  | | | | | | |  | | | |
| 24 | Stamps of expert who carried out the initial inspection | | | | | | | | | | | | | | |
|  | Witness stamp | Test date (mm/yy) | | | | | | Test type | | | | | | | |
|  |  |  | | | | | | P | | | | | | | |

Figure 6.8.2.5.1b Example of a plate for marking Intermediate and Periodic inspections for fixed tanks (tank vehicles) and demountable tanks for the transport of dangerous goods of Classes 1 and 3 to 9

|  |  |  |  |
| --- | --- | --- | --- |
| 25 | Stamps of expert who carried out the intermediate or periodic inspection | | |
|  | Witness stamp | Test date (mm/yy) | Test type |
|  |  |  |  |
|  |  |  |  |

Table 6.8.2.5.1c Explanations of the numbered lines in Figures 6.8.2.5.1a and 6.8.2.5.1b

|  |  |
| --- | --- |
| 1 | Manufacturer’s name or mark |
| 2 | Serial or production number issued by the manufacturer |
| 3 | Year of manufacture |
| 4 | Country of manufacture |
| 5 | Approval number given by the competent authority or body designated by this authority |
| 6 | Appointed Inspection Body designated by the competent authority |
| 7 | Standard to which the tank has been designed and constructed |
| 8 | Test pressure of the shell as a whole and test pressure by compartment in MPa (gauge pressure) where the test pressure of each compartment is less than the test pressure of the shell |
| 9 | Maximum working pressure (gauge) in MPa |
| 10 | External design pressure in MPa |
| 11 | Design temperature in °C (if above 50°C or below -20°C) |
| 12 | Design temperature range in °C |
| 13 | Capacity in litres; after the indication of litres followed by the symbol “S” if the shell or the compartments of more than 7500 l are divided by surge plates into sections of not more than 7500 litres capacity |
| 14 | Number of compartments in the tank/shell |
| 15 | Capacity of each compartment in litres |
| 16 | Materials of the shell and of the ends if different |
| 17 | Equivalent thickness in reference steel |
| 18 | Material of protective lining or coating if applicable. Brand names may be used if they are in common use |
| 19 | Type of insulation of the tank in words, e.g. “thermally insulated” or “thermally insulated by vacuum”, if applicable |
| 20 | The proper shipping name and in the case of n.o.s. entries the technical name of the gas(es) for which the tank is approved |
| 21 | Maximum allowable mass of gases according to no 20 |
| 22 | Maximum filling pressure of gases at 15°C |
| 23 | Filling temperature of gases if below -20°C |
| 24 | Month and year of the initial inspection and stamp of the expert who carried out the inspection followed by the letter “P” for the case of an initial inspection |
| 25 | Month and year of the subsequent intermediate and periodic inspection and stamp of the expert who carried out the inspection followed by the letter “L” in the case of an intermediate inspection or “P” for the case of a periodic inspection |

Line 9 is for pressure-filled or pressure-discharge tanks only, otherwise mark ‘NOT APPLICABLE’

Line 11 only if the design temperature is above 50°C or below -20°C, otherwise mark ‘NOT APPLICABLE’

Line 17 equivalent thickness in reference steel, otherwise mark ‘NOT APPLICABLE’

Line 19 for insulated tanks only, otherwise mark ‘NOT APPLICABLE’

Figure 6.8.2.5.1d: Example of a plate for marking for fixed tanks (tank vehicles) and demountable tanks for the transport of dangerous goods of Class 2

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Manufacturer | |  | | | | | | | | | | | | |
| 2 | Manufacturer’s serial number | |  | | | | | | | | | | | | |
| 3 | Year of manufacture | |  | | | | | | | | | | | | |
| 4 | Country of manufacture | |  | | | | | | | | | | | | |
| 5 | Type approval number | |  | | | | | | | | | | | | |
| 6 | Authorised body for approval | |  | | | | | | | | | | | | |
| 7 | Shell design code (pressurevessel code) | |  | | | | | | | | | | | | |
| 8 | Test Pressure (gauge) | | 1. whole tank | | | | | | | MPa | | | | | |
|  | 1. compartments | | | | | | | MPa | | | | | |
| 9 | Maximum working pressure | | MPa | | | | | | | | | | | | |
| 10 | External design pressure | | MPa | | | | | | | | | | | | |
| 11 | Design temperature | | °C | | | | | | | | | | | | |
| 12 | Design temperature range | | °C | | | | | | to | | | °C | | | |
| 13 | Capacity of tank/shell (total) | | litres | | | | | | | | | | | | S |
| 14 | Number of compartments | |  | | | | | | | | | | | | |
| 15 | Capacity of the compartments | | l | | | l | | | | | l | | | l | |
|  |  | | l | | | l | | | | | l | | | l | |
| 16 | Tank material and material reference | |  | | | | | | | | | | | | |
| 17 | Equivalent thickness in reference steel | | mm | | | | | | | | | | | | |
| 18 | Material protective lining/coating | |  | | | | | | | | | | | | |
| 19 | Insulation | |  | | | | | | | | | | | | |
| 20 | Name of dangerous good(s) | | 21 | Maximum mass | 22 | | Maximum filling pressure | | | | | 23 | Filling temperature | | |
|  |  | | kg | | MPa | | | | | | | °C | | | |
|  |  | |  | |  | | | | | | |  | | | |
|  |  | |  | |  | | | | | | |  | | | |
| 24 | Stamps of expert who carried out the initial inspection | | | | | | | | | | | | | | |
|  | Witness stamp | Test date (mm/yy) | | | | | | Test type | | | | | | | |
|  |  |  | | | | | | P | | | | | | | |

Figure 6.8.2.5.1e Example of a plate for marking Intermediate and Periodic inspections for fixed tanks (tank vehicles) and demountable tanks for the transport of dangerous goods of Class 2

|  |  |  |  |
| --- | --- | --- | --- |
| 25 | Stamps of expert who carried out the intermediate or periodic inspection | | |
|  | Witness stamp | Test date (mm/yy) | Test type |
|  |  |  |  |
|  |  |  |  |

Table 6.8.2.5.1f Explanations of the numbered lines in Figures 6.8.2.5.1d and 6.8.2.5.1e

|  |  |
| --- | --- |
| 1 | Manufacturer’s name or mark |
| 2 | Serial or production number issued by the manufacturer |
| 3 | Year of manufacture |
| 4 | Country of manufacture |
| 5 | Approval number given by the competent authority or body designated by this authority |
| 6 | Appointed Inspection Body designated by the competent authority |
| 7 | Standard to which the tank has been designed and constructed |
| 8 | Test pressure of the shell as a whole and test pressure by compartment in MPa (gauge pressure) where the test pressure of each compartment is less than the test pressure of the shell |
| 9 | Maximum working pressure (gauge) in MPa |
| 10 | External design pressure in MPa |
| 11 | Design temperature in °C (if above 50°C or below -20°C) |
| 12 | Design temperature range in °C |
| 13 | Capacity in litres; after the indication of litres followed by the symbol “S” if the shell or the compartments of more than 7500 l are divided by surge plates into sections of not more than 7500 litres capacity |
| 14 | Number of compartments in the tank/shell |
| 15 | Capacity of each compartment in litres |
| 16 | Materials of the shell and of the ends if different |
| 17 | Equivalent thickness in reference steel |
| 18 | Material of protective lining or coating if applicable. Brand names may be used if they are in common use |
| 19 | Type of insulation of the tank in words, e.g. “thermally insulated” or “thermally insulated by vacuum”, if applicable |
| 20 | The proper shipping name and in the case of n.o.s. entries the technical name of the gas(es) for which the tank is approved |
| 21 | Maximum allowable mass of gases according to no 20 |
| 22 | Maximum filling pressure of gases at 15°C |
| 23 | Filling temperature of gases if below -20°C |
| 24 | Month and year of the initial inspection and stamp of the expert who carried out the inspection followed by the letter “P” for the case of an initial inspection |
| 25 | Month and year of the subsequent intermediate and periodic inspection and stamp of the expert who carried out the inspection followed by the letter “L” in the case of an intermediate inspection or “P” for the case of a periodic inspection |

Line 9 is for pressure-filled or pressure-discharge tanks only, otherwise mark ‘NOT APPLICABLE’

Line 11 only if the design temperature is above 50°C or below -20°C, otherwise mark ‘NOT APPLICABLE’

Line 17 equivalent thickness in reference steel, otherwise mark ‘NOT APPLICABLE’

Line 19 for insulated tanks only, otherwise mark ‘NOT APPLICABLE’

Figure 6.8.2.5.1g: Example of a plate for marking for tank containers or tank swap bodies for the transport of dangerous goods of Classes 1 and 3 to 9

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Manufacturer | |  | | | | | | | |
| 2 | Manufacturer’s serial number | |  | | | | | | | |
| 3 | Year of manufacture | |  | | | | | | | |
| 4 | Country of manufacture | |  | | | | | | | |
| 5 | Type approval number | |  | | | | | | | |
| 6 | Authorised body for approval | |  | | | | | | | |
| 7 | Tank (Pressurevessel) code | |  | | | | | | | |
| 8 | Test Pressure (gauge) | | 1. whole tank | | | | | MPa | | |
|  | 1. compartments | | | | | MPa | | |
| 9 | Maximum working pressure | | MPa | | | | | | | |
| 10 | External design pressure | | MPa | | | | | | | |
| 11 | Design temperature | | °C | | | | | | | |
| 12 | Capacity of tank | | litres | | | | | ‘S’ (*if applicable*) | | |
| 13 | Number of compartments | |  | | | | | | | |
| 14 | Capacity of the compartments | | l | | l | | | l | | l |
|  |  | | l | | l | | | l | | l |
| 15 | Shell material | |  | | | | | | | |
| 16 | Material references | |  | | | | | | | |
| 17 | Material protective lining/coating | |  | | | | | | | |
| 18 | Equivalent thickness in reference steel | | mm | | | | | | | |
| 19 | Insulation | |  | | | | | | | |
| 20 | Name of dangerous good(s) | | 21 | Maximum mass | | 21 | Maximum filling pressure | | 22 | Filling temperature |
|  |  | | kg | | | MPa | | | °C | |
|  |  | |  | | |  | | |  | |
|  |  | |  | | |  | | |  | |
| 23 | Maximum mass | | kg | | | | | | | |
| 24 | Tare mass | | kg | | | | | | | |
| 25 | Special provisions | | | | | | | | | |
| 26 | Stamps of expert who carried out the initial inspection and hydraulic pressure test | | | | | | | | | |
|  | Witness stamp | Test date (mm/yy) | | | | Test type | | | | |
|  |  |  | | | | P | | | | |

Figure 6.8.2.5.1h Example of a plate for marking Intermediate and Periodic inspections for tank containers or a tank swap bodies for the transport of dangerous goods of Classes 1 and 3 to 9

|  |  |  |  |
| --- | --- | --- | --- |
| 27 | Stamps of expert who carried out the intermediate or periodic inspection | | |
|  | Witness stamp | Test date (mm/yy) | Test type |
|  |  |  |  |
|  |  |  |  |

Table 6.8.2.5.1i Explanations of the numbered lines in Figures 6.8.2.5.1g and 6.8.2.5.1h

|  |  |
| --- | --- |
| 1 | Manufacturer’s name or mark |
| 2 | Serial or production number issued by the manufacturer |
| 3 | Year of manufacture |
| 4 | Country of manufacture |
| 5 | Approval number given by the competent authority or body designated by this authority |
| 6 | Appointed Inspection Body designated by the competent authority |
| 7 | Standard or code to which the tank container has been designed and constructed |
| 8 | Test pressure of the shell as a whole and test pressure by compartment in MPa (gauge pressure) where the test pressure of each compartment is less than the test pressure of the shell |
| 9 | Maximum working pressure (gauge) in MPa |
| 10 | External design pressure in MPa |
| 11 | Design temperature in °C if below -30°C |
| 12 | Water Capacity in litres at 20°C; after the indication of litres followed by the symbol “S” if the shell or the compartments of more than 7500 l are divided by surge plates into sections of not more than 7500 litres capacity |
| 13 | Number of compartments in the tank/shell |
| 14 | Capacity of each compartment in litres |
| 15 | Materials of the shell |
| 16 | Reference to material standards |
| 17 | Material of protective lining or coating if applicable. Brand names may be used if they are in common use |
| 18 | Equivalent thickness in reference steel |
| 19 | Type of insulation of the tank in words, e.g. “thermally insulated” or “thermally insulated by vacuum”, if applicable |
| 20 | The proper shipping name and in the case of n.o.s. entries the technical name of the gas(es) for which the tank is approved |
| 21 | Maximum allowable mass of gases according to no 19 |
| 22 | Maximum filling pressure of gases at 15°C |
| 22 | Filling temperature of gases if below -20°C |
| 23 | Maximum permissible gross mass in kg |
| 24 | The unladen mass of the tank which when added to the heaviest load permitted for carriage will give the maximum mass as in 23. |
| 25 | Special provisions |
| 26 | Month and year of the initial original hydraulic pressure test and stamp of the expert who carried out the testfollowed by the letter “P” for the case of an initial inspection |
| 27 | Month and year of the subsequent intermediate and periodic inspection and stamp of the expert who carried out the inspection followed by the letter “L” in the case of an intermediate inspection or “P” for the case of a periodic inspection |

Line 9 is for pressure-filled or pressure-discharge tanks only, otherwise mark ‘NOT APPLICABLE’

Line 11 only if the design temperature is above 50°C or below -20°C, otherwise mark ‘NOT APPLICABLE’

Line 18 equivalent thickness in reference steel, otherwise mark ‘NOT APPLICABLE’

Line 19 for insulated tanks only, otherwise mark ‘NOT APPLICABLE’

Figure 6.8.2.5.1j: Example of a plate for marking for tank containers or tank swap bodies for the transport of dangerous goods of Class 2

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Manufacturer | |  | | | | | | | | | | |
| 2 | Manufacturer’s serial number | |  | | | | | | | | | | |
| 3 | Year of manufacture | |  | | | | | | | | | | |
| 4 | Country of manufacture | |  | | | | | | | | | | |
| 5 | Type approval number | |  | | | | | | | | | | |
| 6 | Authorised body for approval | |  | | | | | | | | | | |
| 7 | Tank (Pressurevessel) code | |  | | | | | | | | | | |
| 8 | Test Pressure (gauge) | | 1. whole tank | | | | | | MPa | | | | |
|  | 1. compartments | | | | | | MPa | | | | |
| 9 | Maximum working pressure | | MPa | | | | | | | | | | |
| 10 | Hydraulic test pressure | | MPa | | | | | | | | | | |
| 11 | External design pressure | | MPa | | | | | | | | | | |
| 12 | Design temperature | | °C | | | | | | | | | | |
| 13 | Design temperature range | | °C | | | | | to | | °C | | | |
| 14 | Capacity of tank (total) | | litres | | | | | | | | | | S |
| 15 | Number of compartments | |  | | | | | | | | | | |
| 16 | Capacity of the compartments | | l | | l | | | | l | | | l | |
|  |  | | l | | l | | | | l | | | l | |
| 17 | Tank shell material | |  | | | | | | | | | | |
| 18 | Material standard | |  | | | | | | | | | | |
| 19 | Material protective lining/coating | |  | | | | | | | | | | |
| 20 | Equivalent thickness in reference steel | | mm | | | | | | | | | | |
| 21 | Insulation | |  | | | | | | | | | | |
| 22 | Name of dangerous good(s) | | 23 | Maximum mass | 24 | Maximum filling pressure | | | | 25 | Filling temperature | | |
|  |  | | kg | | MPa | | | | | °C | | | |
|  |  | |  | |  | | | | |  | | | |
|  |  | |  | |  | | | | |  | | | |
| 26 | Maximum mass | | kg | | | | | | | | | | |
| 27 | Tare mass | | kg | | | | | | | | | | |
| 27 | Stamps of expert who carried out the original hydraulic pressure test | | | | | | | | | | | | |
|  | Test date (mm/yy) | Witness stamp | | | | | Test type | | | | | | |
|  |  |  | | | | | P | | | | | | |

Figure 6.8.2.5.1k Example of a plate for marking Intermediate and Periodic inspections for tank containers or tank swap bodies for the transport of dangerous goods of Class 2

|  |  |  |  |
| --- | --- | --- | --- |
| 28 | Stamps of expert who carried out the intermediate or periodic inspection | | |
|  | Witness stamp | Test date (mm/yy) | Test type |
|  |  |  |  |
|  |  |  |  |

Table 6.8.2.5.1l Explanations of the numbered lines in Figures 6.8.2.5.1j and 6.8.2.5.1k

|  |  |
| --- | --- |
| 1 | Manufacturer’s name or mark |
| 2 | Serial or production number issued by the manufacturer |
| 3 | Year of manufacture |
| 4 | Country of manufacture |
| 5 | Approval number given by the competent authority or body designated by this authority |
| 6 | Appointed Inspection Body designated by the competent authority |
| 7 | Standard or code to which the tank container has been designed and constructed |
| 8 | Test pressure of the shell as a whole and test pressure by compartment in MPa (gauge pressure) where the test pressure of each compartment is less than the test pressure of the shell |
| 9 | Maximum working pressure (gauge) in MPa |
| 10 | Hydraulic test pressure |
| 11 | External design pressure in MPa |
| 12 | Design temperature in °C if below -30°C |
| 13 | Design temperature in °C |
| 14 | Water Capacity in litres at 20°C; after the indication of litres followed by the symbol “S” if the shell or the compartments of more than 7500 l are divided by surge plates into sections of not more than 7500 litres capacity |
| 15 | Number of compartments in the tank/shell |
| 16 | Capacity of each compartment in litres |
| 17 | Materials of the shell |
| 18 | Reference to material standards |
| 19 | Material of protective lining or coating if applicable. Brand names may be used if they are in common use |
| 20 | Equivalent thickness in reference steel |
| 21 | Type of insulation of the tank in words, e.g. “thermally insulated” or “thermally insulated by vacuum”, if applicable |
| 22 | The proper shipping name and in the case of n.o.s. entries the technical name of the gas(es) for which the tank is approved |
| 23 | Maximum allowable mass of gases according to no 22 |
| 24 | Maximum filling pressure of gases at 15°C |
| 25 | Filling temperature of gases if below -20°C |
| 26 | Maximum permissible gross mass in kg |
| 27 | The unladen mass of the tank which when added to the heaviest load permitted for carriage will give the maximum mass as in 26. |
| 27 | Month and year of the original hydraulic pressure test and stamp of the expert who carried out the testfollowed by the letter “P” for the case of an initial inspection |
| 28 | Month and year of the subsequent intermediate and periodic inspection and stamp of the expert who carried out the inspection followed by the letter “L” in the case of an intermediate inspection or “P” for the case of a periodic inspection |

Line 9 is for pressure-filled or pressure-discharge tanks only, otherwise mark ‘NOT APPLICABLE’

Line 11 only if the design temperature is above 50°C or below -20°C, otherwise mark ‘NOT APPLICABLE’

Line 18 equivalent thickness in reference steel, otherwise mark ‘NOT APPLICABLE’

Line 19 for insulated tanks only, otherwise mark ‘NOT APPLICABLE’

Figure 6.8.2.5.1m: Example of a plate for marking Battery-Vehicles and MEGCs for the transport of dangerous goods

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Manufacturer | |  | | | | | | | | | | | |
| 2 | Manufacturer’s serial number | |  | | | | | | | | | | | |
| 3 | Year of manufacture | |  | | | | | | | | | | | |
| 4 | Country of manufacture | |  | | | | | | | | | | | |
| 5 | Type approval number | |  | | | | | | | | | | | |
| 6 | Authorised body for approval | |  | | | | | | | | | | | |
| 7 | Shell design code (pressurevessel code) | |  | | | | | | | | | | | |
| 8 | Test Pressure (gauge) | | 1. whole tank | | | | | | | MPa | | | | |
|  | 1. compartments | | | | | | | MPa | | | | |
| 9 | Maximum working pressure | | MPa | | | | | | | | | | | |
| 10 | External design pressure | | MPa | | | | | | | | | | | |
| 11 | Design temperature | | °C | | | | | | | | | | | |
| 12 | Design temperature range | | °C | | | | | | to | | °C | | | |
| 13 | Capacity of the shell (total) | | litres | | | | | | | | | | | S |
| 14 | Number of elements/compartments | |  | | | | | | | | | | | |
| 15 | Capacity of the compartments | | l | | | l | | | | l | | | l | |
|  |  | | l | | | l | | | | l | | | l | |
| 16 | Shell material | |  | | | | | | | | | | | |
| 17 | Material references | |  | | | | | | | | | | | |
| 18 | Material protective lining/coating | |  | | | | | | | | | | | |
| 19 | Name of dangerous good(s) | | 20 | Maximum mass | 21 | | Maximum filling pressure | | | | 22 | Filling temperature | | |
|  |  | | kg | | MPa | | | | | | °C | | | |
|  |  | |  | |  | | | | | |  | | | |
|  |  | |  | |  | | | | | |  | | | |
| 23 | Maximum mass | | kg | | | | | | | | | | | |
| 24 | Tare mass | | kg | | | | | | | | | | | |
| 25 | Stamps of expert who carried out the initial inspection | | | | | | | | | | | | | |
|  | Witness stamp | Test date (mm/yy) | | | | | | Test type | | | | | | |
|  |  |  | | | | | | P | | | | | | |

Figure 6.8.2.5.1n Example of a plate for marking Intermediate and Periodic inspections for MEGCs and battery vehicles for the transport of dangerous goods

|  |  |  |  |
| --- | --- | --- | --- |
| 26 | Stamps of expert who carried out the intermediate or periodic inspection | | |
|  | Witness stamp | Test date (mm/yy) | Test type |
|  |  |  |  |
|  |  |  |  |

Table 6.8.2.5.1o Explanations of the numbered lines in Figures 6.8.2.5.1m and 6.8.2.5.1n

|  |  |
| --- | --- |
| 1 | Manufacturer’s name or mark |
| 2 | Serial or production number issued by the manufacturer |
| 3 | Year of manufacture |
| 4 | Country of manufacture |
| 5 | Approval number given by the competent authority or body designated by this authority |
| 6 | Appointed Inspection Body designated by the competent authority |
| 7 | Standard or code to which the shell has been designed and constructed |
| 8 | Test pressure of the shell as a whole and test pressure by compartment in MPa (gauge pressure) where the test pressure of each compartment is less than the test pressure of the shell |
| 9 | Maximum working pressure (gauge) in MPa for pressure filled or pressure discharge tanks only |
| 10 | External design pressure in MPa |
| 11 | Design temperature (only if above +50°C or below -20°C) |
| 12 | Design temperature range in °C |
| 13 | Water Capacity in litres at 20°C; after the indication of litres followed by the symbol “S” if the shell or the compartments of more than 7500 l are divided by surge plates into sections of not more than 7500 litres capacity |
| 14 | Number of compartments in the tank/shell |
| 15 | Capacity of each compartment in litres |
| 16 | Materials of the shell |
| 17 | Reference to material standards |
| 18 | Material of protective lining or coating, if applicable. |
| 19 | The proper shipping name and in the case of n.o.s. entries the technical name of the gas(es) for which the tank is approved |
| 20 | Maximum allowable mass of gases according to 19 |
| 21 | Maximum filling pressure of gases at 15°C |
| 22 | Filling temperature of gases if below -20°C |
| 23 | Maximum permissible gross mass in kg |
| 24 | The unladen mass of the tank which when added to the heaviest load permitted for carriage will give the maximum mass as in 23. |
| 25 | Month and year of the initial inspection and stamp of the expert who carried out the inspection followed by the letter “P” for the case of an initial inspection |
| 26 | Month and year of the subsequent intermediate and periodic inspection and stamp of the expert who carried out the inspection followed by the letter “L” in the case of an intermediate inspection or “P” for the case of a periodic inspection |

Line 9 is for pressure-filled or pressure-discharge tanks only, otherwise mark ‘NOT APPLICABLE’

Line 11 only if the design temperature is above 50°C or below -20°C, otherwise mark ‘NOT APPLICABLE’

|  |  |  |
| --- | --- | --- |
| 6.8.2.5.2 | The following particulars shall be inscribed on the tank-vehicle (on the tank itself or on plates)**13**:  - name of owner or operator;  - unladen mass of the tank-vehicle; and  - maximum permissible mass of the tank-vehicle.  The following particulars shall be inscribed on a demountable tank (on the tank itself or on plates)**13**:  - name of owner or operator;  - "demountable tank";  - tare mass of the tank;  - maximum permissible gross mass of the tank;  [- ~~for the substances according to 4.3.4.1.3, the proper shipping name of the substance(s) accepted for carriage;]~~  - tank code according to 4.3.4.1.1; and  - for substances other than those according to 4.3.4.1.3, the alphanumeric codes of all special provisions TC and TE which are shown in column (13) of Table A of Chapter 3.2 for the substances to be carried in the tank. | The following particulars shall be inscribed on the tank-container (on the tank itself or on plates)**13**:  - names of owner and of operator;  - [~~capacity of the shell;]~~  - [~~tare;]~~  - [~~maximum permissible gross mass~~;]  - [~~for the substances according to 4.3.4.1.3, the proper shipping name of the substance(s) accepted for carriage~~;]  - tank code according to 4.3.4.1.1; and  - for substances other than those according to 4.3.4.1.3, the alphanumeric codes of all special provisions TC and TE which are shown in column (13) of Table A of Chapter 3.2 for the substances to be carried in the tank. |

1. \* In accordance with the draft programme of work of the Inland Transport Committee for 2018-2019, (ECE/TRANS/WP.15/237, annex V, (9.2)). [↑](#footnote-ref-2)
2. *13* Add the units of measurement after the numerical values. [↑](#footnote-ref-3)