**Annex 6**

**Alternative procedure for the type approving trailers**

1. General
   1. This annex defines an alternative procedure for type approving trailers, regarding their tyre pressure monitoring system utilizing information from test reports issued in accordance with Annex 3 and Annex 5.
   2. On completion of the verification procedures described in Annex 3 [Table 1], the Technical Service/Type Approval Authority shall issue an UN type approval certificate conforming to the model specified in Annex 2 to this Regulation.
2. Application for type approval
   1. The application for UN type approval of a trailer type with regard to tyre pressure monitoring system shall be submitted by the trailer manufacturer. In support of the approval the trailer manufacturer shall supply to the Technical Service at least the following:
      1. A copy of the UN or EU type approval certificate and an information document of a trailer type hereafter referred to as the "reference trailer"[[1]](#footnote-1) on which tyre pressure monitoring system is to be based. This trailer will have been subject to the actual tests defined in Annex 3 and Annex 5 to this Regulation for the appropriate trailer. A trailer that has been approved to the alternative procedure defined in this annex shall not be used as a reference trailer.
      2. documentation package for the [subject] [reference] trailer that contains the relevant verification information including the relevant calculations, where appropriate, for the following:

Table 1

|  |  |
| --- | --- |
| *Performance Tests* | *Annex* |
| Puncture test | Annex 3 |
| Diffusion test | Annex 3 |
| Malfunction test | Annex 3 |
| Compatibility between towing vehicles and towed vehicles with respect to ISO 11992-2:2014 data communication | Annex 5 |

* + 1. A trailer, representative of the trailer type to be approved hereafter referred to as the "subject trailer".

**Annex 7**

**Trailer Tyre Pressure Monitoring Systems Information Document**

**1. General**

1.1. Name of manufacturer

1.2. System name

1.3. System variations

1.4. System configurations

1.5. Explanation of the basic function and/or philosophy of the system.

**2. Applications**

2.1. TPMS configurations/options

2.2 List of trailer types and axle configurations for which approval is required.

2.2. Schematic diagrams of the system configurations installed on the trailers

defined in item 2.1. above with consideration given to the following parameters:

* Sensor locations
* ECU location

2.3. System identification

2.4 Additional information (if applicable) to the application of the Tyre Pressure Monitoring system.

**3. Component description**

3.1. Sensor(s)

* Function
* Identification (e.g. part number(s))

3.2. Controller(s)

* General description and function
* Identification (e.g. part number(s))
* Safety aspects of controller(s)
* Additional features

3.4. Electrical equipment

* Circuit diagram(s)
* Powering methods

3.6. Electro-magnetic compatibility

3.6.1. Documentation demonstrating compliance with the provisions of Annex 1 to this Regulation.

# Annex 8

**Trailer Tyre Pressure Monitoring System Test Report**

1. Identification
   1. Manufacturer of the Tyre Pressure Monitoring Systems (TPMS) (name and address)
   2. System name / model
   3. Control function
2. System(s) and installations approved:
   1. TPMS configurations (where appropriate)
   2. Range of application (trailer type(s) and number of axles)
   3. System identification
   4. Additional features
3. Test results
   1. Tyre Class, Marking and wheel size(s) of standard unit equipment: ............................
   2. Brief description of the tyre pressure monitoring system / tyre pressure refill system2 / central tyre inflation system including implemented measures to avoid inadvertent reset control operation according to paragraph 5.1.6., if applicable ..............................
   3. Result of the tests
   4. According to Annex 3 (TPMS), if applicable:

|  |  |  |
| --- | --- | --- |
| Paragraph | Test | Measured Time to warning (mm:ss) |
| 2.5.1 | Puncture Test |  |
| 2.5.2 | Diffusion Test |  |
| 3.1 | Malfunction Test |  |

* 1. According to Annex 4 (TPRS/ CTIS), if applicable2:

|  |  |  |
| --- | --- | --- |
| Paragraph | Test | Measured Time to warning (mm:ss) |
| 2.2.1 | Refilling Test |  |
| 2.3. | Malfunction Test |  |

* 1. Assessment in accordance with paragraph 7 to this Regulation

1. Limits of installation
   1. Location of components on the trailer
   2. Other recommendations/limitations
2. Date of test:
3. This test has been carried out and the results reported in accordance with Annex 5 to UN Regulation No. 141 as last amended by the … series of amendments.

Technical Service1 conducting the test

Signed: ................................... Date: ................................

Type Approval Authority1

Signed: ................................... Date: ................................

Attachment: Manufacturer's information document

--------------------------

1 To be signed by different persons even when the Technical Service and Type Approval Authority are the same

1. The reference trailer may be from a different manufacturer [↑](#footnote-ref-1)