**Changes to legislation:** There are outstanding changes not yet made to Commission Regulation (EU) No 582/2011. 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

### ANNEX XIV

## **MEASUREMENT OF NET ENGINE POWER**

## 1. INTRODUCTION

- 1.1. This Annex sets out requirements for measuring net engine power.
- 2. GENERAL
- 2.1. The general specifications for conducting the tests and interpreting the results shall be those set out in Section 5 of UN/ECE Regulation 85 with the exceptions specified in this Annex.
- 2.1.1. Measurement of net power according to this Annex shall be performed on all members of an engine family.

# 2.2. Test fuel

[<sup>F1</sup>[<sup>F2</sup>2.2.1For positive-ignition engines fuelled with petrol or E85, paragraph 5.2.3.1 of UN/ECE Regulation No 85 shall be understood as follows:

The fuel used shall be the one available on the market. In any case of dispute the fuel shall be the appropriate reference fuel specified in Annex IX to Regulation (EU) No 582/2011.]

#### **Textual Amendments**

- F1 Substituted by Commission Regulation (EU) No 133/2014 of 31 January 2014 amending, for the purposes of adapting to technical progress as regards emission limits, Directive 2007/46/EC of the European Parliament and of the Council, Regulation (EC) No 595/2009 of the European Parliament and of the Council and Commission Regulation (EU) No 582/2011 (Text with EEA relevance).
- **F2** Substituted by Commission Regulation (EU) 2016/1718 of 20 September 2016 amending Regulation (EU) No 582/2011 with respect to emissions from heavy-duty vehicles as regards the provisions on testing by means of portable emission measurement systems (PEMS) and the procedure for the testing of the durability of replacement pollution control devices (Text with EEA relevance).
- 2.2.2. For positive ignition engines and dual-fuel engines fuelled with LPG:
- 2.2.2.1. In the case of an engine with self-adapting fuelling, paragraph 5.2.3.2.1 of UNECE Regulation No 85 shall be understood as follows:

The fuel used shall be the one available on the market. In case of dispute, the fuel shall be the appropriate reference fuel specified in Annex IX to this Regulation. Instead of the reference fuels specified in Annex IX to this Regulation, the reference fuels specified in Annex 8 to UNECE Regulation No85 may be used.

2.2.2.2. In the case of an engine without self-adaptive fuelling, paragraph 5.2.3.2.2 of UNECE Regulation No 85 shall be understood as follows:

The fuel used shall be the reference fuel specified in Annex IX to this Regulation or the reference fuels specified in Annex 8 to UNECE Regulation No85 may be used with the lowest  $C_3$ -content, or

- 2.2.3. For positive ignition engines and dual-fuel engines fuelled with NG/biomethane:
- 2.2.3.1. In the case of an engine with self-adaptive fuelling, paragraph 5.2.3.3.1 of UNECE Regulation No 85 shall be understood as follows:

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The fuel used shall be the one available on the market. In case of dispute the fuel shall be the appropriate reference fuel specified in Annex IX to this Regulation. Instead of the reference fuels specified in Annex IX to this regulation, the reference fuels specified in Annex 8 to UNECE Regulation No85 may be used.

2.2.3.2. In the case of an engine without self-adaptive fuelling, paragraph 5.2.3.3.2 of UNECE Regulation No 85 shall be understood as follows:

The fuel used shall be the one available on the market with a Wobbe index at least  $52,6 \text{ MJm}^{-3}$  (20°C, 101,3 kPa). In case of dispute, the fuel used shall be the reference fuel G<sub>R</sub> specified in Annex IX to this Regulation.

2.2.3.3. In the case of an engine labelled for a specific range of fuels, paragraph 5.2.3.3.3 of UNECE Regulation No 85 shall be understood as follows:

The fuel used shall be the one available on the market with a Wobbe index at least 52,6 MJm<sup>-3</sup> (20°C, 101,3 kPa) if the engine is labelled for the H-range of gases, or at least 47,2 MJm<sup>-3</sup> (20°C, 101,3 kPa) if the engine is labelled for the L-range of gases. In case of dispute, the fuel used shall be the reference fuel  $G_R$  specified in Annex IX to this Regulation if the engine is labelled for the H-range of gases, or the reference fuel  $G_{23}$  if the engine is labelled for the L-range of gases, that is the fuel with the highest Wobbe index for the relevant range, or

[<sup>F2</sup>2.2.4. For compression-ignition engines, paragraph 5.2.3.4 of UN/ECE Regulation 85 shall be understood as follows:

The fuel used shall be the one available on the market. In any case of dispute the fuel shall be the appropriate reference fuel specified in Annex IX to Regulation (EU) No 582/2011.]]

# 2.3. **Engine-driven equipment**

The requirements on engine-driven equipment differ between UN/ECE Regulation No 85 (power testing) and UN/ECE Regulation No 49 (emissions testing).

- 2.3.1. For the purpose of measuring the net engine power the provisions regarding test conditions and auxiliaries as specified in Annex 5 to UN/ECE Regulation No 85 shall apply.
- [<sup>F1</sup>2.3.2. For the purpose of emissions testing following the procedures provided for in Annex III to this Regulation, the provisions regarding engine power as specified in paragraph 6.3 of Annex 4 to UNECE Regulation No 49 shall apply.]

#### **Changes to legislation:**

There are outstanding changes not yet made to Commission Regulation (EU) No 582/2011. Any changes that have already been made to the legislation appear in the content and are referenced with annotations.

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

- Signature words omitted by S.I. 2022/1273 reg. 65(19)
- Annex list words substituted by S.I. 2022/1273 reg. 65(20)
- Annex 1 Appendix 4Pt. 3 omitted by S.I. 2022/1273 reg. 66(3)(g)
- Annex 1 Appendix 8 image substituted by S.I. 2022/1273 reg. 66(7)(b)
- Annex 1 Appendix 4Pt. 1 table words inserted by S.I. 2022/1273 reg. 66(3)(e)(i)
- Annex 1 Appendix 4Pt. 2 table words inserted by S.I. 2022/1273 reg. 66(3)(f)(i)
- Annex 1 Appendix 4 words omitted by S.I. 2022/1273 reg. 66(3)(b)
- Annex 1 Appendix 4 words omitted by S.I. 2022/1273 reg. 66(3)(c)(ii)(bb)
- Annex 1 Appendix 4 words omitted by S.I. 2022/1273 reg. 66(3)(c)(iii)(aa)
- Annex 1 Appendix 4 table words omitted by S.I. 2022/1273 reg. 66(3)(d)(i)
- Annex 1 Appendix 4 words omitted by S.I. 2022/1273 reg. 66(3)(d)(iii)
- Annex 1 Appendix 8 words omitted by S.I. 2022/1273 reg. 66(7)(c)
- Annex 1 Appendix 1 point 2.2 words omitted by S.I. 2022/1273 reg. 66(10)(e)
- Annex 1 Appendix 4 words substituted by S.I. 2022/1273 reg. 66(3)(a)
- Annex 1 Appendix 4 words substituted by S.I. 2022/1273 reg. 66(3)(c)(i)
- Annex 1 Appendix 4 words substituted by S.I. 2022/1273 reg. 66(3)(c)(ii)(aa)
- Annex 1 Appendix 4 words substituted by S.I. 2022/1273 reg. 66(3)(c)(iii)(bb)
- Annex 1 Appendix 4 table words substituted by S.I. 2022/1273 reg. 66(3)(d)(ii)
- Annex 1 Appendix 4Pt. 1 table words substituted by S.I. 2022/1273 reg. 66(3)(e)(ii)
- Annex 1 Appendix 4Pt. 2 table words substituted by S.I. 2022/1273 reg. 66(3)(f)(ii)
- Annex 1 Appendix 5 heading words substituted by S.I. 2022/1273 reg. 66(4)(a)
- Annex 1 Appendix 5 words substituted by S.I. 2022/1273 reg. 66(4)(a)
- Annex 1 Appendix 5s. 2 point 000.5 words substituted by S.I. 2022/1273 reg. 66(4)
  (b)
- Annex 1 Appendix 6 heading words substituted by S.I. 2022/1273 reg. 66(5)(a)
- Annex 1 Appendix 6 heading words substituted by S.I. 2022/1273 reg. 66(5)(b)
- Annex 1 Appendix 6 heading words substituted by S.I. 2022/1273 reg. 66(5)(c)
- Annex 1 Appendix 7 heading words substituted by S.I. 2022/1273 reg. 66(6)
- Annex 1 Appendix 7 words substituted by S.I. 2022/1273 reg. 66(6)
- Annex 1 Appendix 7 Addendum words substituted by S.I. 2022/1273 reg. 66(6)
- Annex 1 Appendix 8 heading words substituted by S.I. 2022/1273 reg. 66(7)(a)
- Annex 1 Appendix 9 heading words substituted by S.I. 2022/1273 reg. 66(8)
- Annex 1 Appendix 9 words substituted by S.I. 2022/1273 reg. 66(8)
- Annex 1 Appendix 10 words substituted by S.I. 2022/1273 reg. 66(9)
- Annex 10 Appendix 5 point 2.4.1 words omitted by S.I. 2022/1273 reg. 66(12)(f)(i)
- Annex 10 Appendix 5 point 6 heading words omitted by S.I. 2022/1273 reg. 66(12) (f)(iii)
- Annex 10 Appendix 5 point 6 words omitted by S.I. 2022/1273 reg. 66(12)(f)(iii)
- Annex 10 Appendix 5 point 5.2.4 words substituted by S.I. 2022/1273 reg. 66(12)(f)
  (ii)
- Annex 11 Appendix 1 point 2-2.3 omitted by S.I. 2022/1273 reg. 66(13)(k)(ii)
- Annex 11 Appendix 2 words inserted by S.I. 2022/1273 reg. 66(13)(1)(ii)
- Annex 11 Appendix 1 point 000.7 words substituted by S.I. 2022/1273 reg. 66(13)
  (k)(i)
- Annex 11 Appendix 2 words substituted by S.I. 2022/1273 reg. 66(13)(1)(i)
- Annex 11 Appendix 2 words substituted by S.I. 2022/1273 reg. 66(13)(l)(iii)
- Annex 11 Appendix 3 point 2.4.2.11 words substituted by S.I. 2022/1273 reg. 66(13) (m)(i)

