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Item 5 (b) of the provisional agenda

Proposals of amendments to ATP: new proposals

Mechanically refrigerated appliances driven by vehicle motion

Transmitted by the Government of the Netherlands

Summary

Executive summary:	When the compressor of a mechanically refrigerated unit is directly driven by vehicle motion, production of heat stops when the vehicle stops moving. During longer stops and overnight stays temperature may not be maintained. Should this be allowed, is this non-independent or just obsolete technology?
Action to be taken:	Discussion on, and possible deletion of option of driven by vehicle motion.
Related documents:	N.A.

Introduction

1. For mechanically refrigerated thermal appliances on which the compressor is directly driven by vehicle motion specific test requirements are given in Annex 1, Appendix 2 article 4.3.1 (b), last paragraph.
2. Several observations can be made on this kind of construction (e.g. is it obsolete, should it be seen as non-independent) but the main concern is that when the vehicle has to stop, production of cold is interrupted, even at longer waiting times at harbours or border crossings and overnight stays. Without a back-up system temperature may not be maintained on longer journeys and food-safety at risk.
3. As it is believed to be obsolete, and has some concerns for food safety it should be discussed if this system can be deleted. If it cannot be deleted, it should be discussed if this should be added to Annex 1, Appendix 2, article 6.2.2 and to Annex 1, Appendix 4, article 2.1.



4. This document is not intended to prevent the use of so called E-axles on trailers as the mechanically unit is driven by electric energy, fed by the axle. It is assumed that they are equipped with buffer batteries and that they may be plugged in the Grid during longer waiting periods.

Proposals

Option 1 – deleting this system

5. Delete the last paragraph of Annex 1, Appendix 2, article 4.3 (b) (deleted wording stricken through):

~~“If the compressor is driven by the vehicle motion, the test shall be carried out at the nominal speed of rotation of the compressor as specified by the manufacturer.”~~

Option 2 – maintaining this system and updating the regulation

6. New wording underlined and deleted wording ~~stricken through~~

Part 1; Amend Annex 1, Appendix 2 to read:

“ 6.2.2 ***Non-independent equipment***

(i) *Non-independent equipment, the refrigeration unit of which is powered by the engine of the vehicle or the vehicle motion.*

It shall be verified that, when the outside temperature is not lower than 15 °C, the inside temperature of the empty equipment can be maintained at the class temperature, after cool-down and stabilization, when the compressor is driven at a rotational speed belonging to the vehicle engine is running at the idle speed as set by the vehicle manufacturer (where applicable), or where the compressor is driven at a nominal rotational speed as set by the appliance manufacturer when the compressor is driven by vehicle motion, for a minimum period of one hour and thirty minutes.”

Part 2; Amend paragraph 2.1 of Annex 1, Appendix 4 to read:

“2.1 Where the compressor is ~~driven powered~~ by the vehicle engine, or by the vehicle motion;”

Part 3; introduce a new transitional measure in Annex 1, paragraph 6 to read:

“For equipment where the compressor is driven my vehicle motion constructed prior to [date of approval], the provision of Annex 1, Appendix 2, article 6.2.2 and Annex 1, Appendix 4 article 2.1 need not be applied. Instead of the check in 6.2.2 the equipment shall comply with the requirements 6.2.1 (i) or (ii) of this article as applicable for the date of construction.”

Justification

7. The compressor driven by vehicle motion is felt as something obsolete. However it may still be used on train wagons. Although deletion of the option would simplify the regulation the possibility that some train-wagons are still around may justify option 2.

8. Furthermore, in 6.2.2 additional amendments are included to explain that the rotational speed of the compressor is intended related to the idle running speed of the vehicles engine.

9. In Annex 1, Appendix 4 2.1 it is suggested to change the word “powered” by “driven”, to prevent misinterpretation by vehicle engine driven generators that power an electric driven thermal appliance or E-axles on trailers.

10. An transitional measure is foreseen for Annex 1 section 6 to clarify the application of the amended 6.2.2 of Annex 1, Appendix 2 and 2.1 of Annex 1, Appendix 4.

- Cost: No additional cost expected.
- Feasibility: The regulation will be simplified by deleting obsolete requirements, some obscured equipment may be still around. A transitional measure is included in case option 2 is chosen.
- Impact: If obsolete no impact, if not obsolete requirements will be on a correct level .
- Enforceability: No problems foreseen with implementation.
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