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Working Party on Customs Questions

affecting Transport

(One-hundred-and-sixth session, 3-6 February 2004,
agenda item 7 (c) (iv))

**CUSTOMS CONVENTION ON THE INTERNATIONAL TRANSPORT
OF GOODS UNDER COVER OF TIR CARNETS (TIR CONVENTION 1975)**

Application of the Convention

Amendment proposals relating to technical provisions

Cable with fibre-optic protection

Note by the secretariat

A. BACKGROUND

1. At its one-hundred-and-second session, the Working Party considered document TRANS/WP.30/2002/27 containing information on a cable with integrated fibre-optic, which, if used as a TIR cable, could offer increased security against tampering and unauthorized access to the load compartment as well as provide improved facilities of remote monitoring of the integrity of the load compartment via connection to a GPS system. The representative of the Hungarian Road Haulage Association (ATRH) informed the Working Party that the Hungarian Customs authorities had considered the information provided by the manufacturer and had found that the cable was not in conformity with the description provided for in Annex 2 of the Convention. The Working Party considering that such type of product could possibly be a useful element in improving Customs

control of sealed load compartments, requested the secretariat to invite the manufacturer to give a demonstration of the cable at its next session (TRANS/WP.30/2004, para. 54).

2. At its one-hundred-and-third meeting, the Working Party took note of such a presentation, but decided to postpone further discussion on the issue until its next session, where it would be possible to consider the technical compliance with the provisions of the Convention, Annex 2, based on the results of investigations of the cable to be carried out by Customs authorities (TRANS/WP.30/206, paras. 52 and 53).

3. At its one-hundred-and-fourth meeting, the Working Party was informed by the German delegation, that it, based on a test of the fastening cable with integrated fibre optic, was of the view that the cable is tamper-proof for Customs purposes (Informal document No. 4 (2003)). The Working Party was of the view that, most likely, an amendment to the Convention was necessary before the cable could be used within the TIR procedure and requested the secretariat to prepare an official document for its one-hundred-and-fifth session with the conclusions of the German testing and with a proposal for introduction of provisions in the Convention for the use of the cable (TRANS/WP.30/208, paras. 48-49).

B. CONCLUSIONS OF THE GERMAN STUDY OF THE CABLE WITH FIBRE-OPTIC PROTECTION

4. The conclusion of the testing by the German authorities has been that the fastening cable with fibre-optic protection is tamper-proof for Customs purposes.

5. According to the German study, the fastening cable with fibre-optic protection falls within the general provisions of Annex 2, Article 1, paragraphs (a) and (b), which (in as far as relevant) stipulate that approval for the international transport of goods under Customs seals may be granted only to vehicles, the load compartments of which are constructed and equipped in such a manner that:

- (a) no goods can be removed from or introduced into, the sealed part of the vehicle without leaving obvious traces of tampering or without breaking the Customs seal;
- (b) Customs seals can be simply and effectively affixed to them.

6. However, the fastening cable with fibre-optic protection does not meet the restrictive requirements of Annex 2, Article 3, paragraph 9, which stipulates with regard to sheeted vehicles that the following fastenings shall be used:

- (a) steel wire ropes of at least 3 mm diameter; or

- (b) ropes of hemp or sisal of at least 8 mm diameter encased in a transparent sheath of unstretchable plastic.

Wire ropes may have a sheath of unstretchable plastic.

7. These restrictive requirements do not provide for the use of other materials, apart from those mentioned, although such other materials may very well fulfil the general criteria of being Customs secure while, at the same time, being simple and effective.

C. CONSIDERATIONS BY THE WORKING PARTY

8. The secretariat has found that the provision of Annex 2, Article 3, paragraph 9 is already present in the 1959 TIR Convention. Annex 3, Article 5, paragraph 6 stipulates that the following types of fastening shall be used:

- (a) steel wire rope of at least 3 mm diameter; or
- (b) hemp or sisal rope at least 8 mm thick encased in a transparent non-tensile plastic sheath; or
- (c) iron bars at least 8 mm in diameter.

Steel wire ropes shall not be covered, except with a transparent non-tensile plastic sheath. Iron bars shall not be coated with non-transparent material.

9. Without being in a position to answer why (c) has been deleted from the successor paragraph, it is clear that there are very strong historical indications that the founding fathers of the TIR Convention must have had good reasons for formulating such a restrictive choice of types of fastening. The fact that this provision has stood the test of time for forty-five years may give rise to the idea that it is better to be prudent. Therefore, it could be argued that the provision should not be amended.

10. However, on the other hand, it has to be said that technology has evolved considerably over the last decades and new materials (or combinations of materials) may have been introduced, which were not known at that time and which generally have become known for their solidity and security, also in case of application as Customs seals/fastenings. Such developments could justify either an amendment of the list or could even allow for a more general, non-specific, description of the types of fastenings.

11. Standard 16 of Specific Annex E to the revised Kyoto Convention stipulates that Customs seals and fastenings used in the application of Customs transit shall fulfil the minimum requirements

laid down in the Appendix (to that Chapter of Annex E) (the complete text of the Appendix is contained in Annex to this document for information).

12. Of particular importance to the underlying discussion is the text of point 3 of the Appendix, which stipulates:

“3. Physical specifications of fastenings:

- (a) the fastening shall be strong and durable and resistant to weather and corrosion;
- (b) the length of the fastening used shall not enable a sealed aperture to be opened or partly opened without the seal or fastening being broken or otherwise showing obvious damage;
- (c) the material used shall be selected by reference to the sealing system used.”

13. No further specification of the acceptable types of fastening is given. The Working Party may wish to consider whether it would be useful to amend the existing text of Annex 2, Article 3, paragraph 9 accordingly. To advance in the matter, the secretariat has drafted two options, which may give guidance to the discussion by the Working Party.

Option 1:

Annex 2, Article 3, paragraph 9, amended text:

“9. The following fastenings shall be used:

- (a) steel wire ropes of at least 3 mm diameter; or
- (b) ropes of hemp or sisal of at least 8 mm diameter encased in a transparent sheath of unstretchable plastic; or
- (c) any other type of material, as long as it shall be strong and durable and resistant to weather and corrosion.

Wire ropes may have a transparent sheath of unstretchable plastic.

In cases where... etc. etc. (rest of paragraph 9 remains unchanged)”

Option 2:

Annex 2, Article 3, paragraph 9, new text:

“9. The fastening shall be made of any type of material, as long as it shall be strong and durable and resistant to weather and corrosion.

In cases where... etc. etc. (rest of paragraph 9 remains unchanged)

New Explanatory Note to Article 3, paragraph 9:

2.3.9. Although any type of fastening, fulfilling the general criteria of paragraph 9, should be accepted, Customs authorities may, in particular allow for the following fastenings:

- (a) steel wire ropes of at least 3 mm diameter; or
- (b) ropes of hemp or sisal of at least 8 mm diameter encased in a transparent sheath of unstretchable plastic;

Wire ropes may have a transparent sheath of unstretchable plastic.”

D. FURTHER CONSIDERATIONS

14. Having addressed the issue of the specifications of fastenings, the Working Party will also have to discuss the provision of paragraph 10 of the same Article 3 of Annex 2. As it stands, this paragraph seems to impede the use of a fastening cable with fibre-optic protection, as described in document TRANS/WP.30/2002/27, because it does not fulfil the requirements set out in that paragraph. Annex 2, Article 3, paragraph 10 stipulates that:

“Each rope shall be in one-piece and have a hard metal end-piece at each end. The fastener of each metal end-piece shall include a hollow rivet passing through the rope so as to allow the introduction of the thread or strap to the Customs seal. The rope shall remain visible on either side of the hollow rivet so that it is possible to ensure that the rope is in one piece. Sketch No. 5 of Annex 2 gives an example of an end-piece, fulfilling such requirement.”

15. Upon request, the private company manufacturing fibre-optic fastening cables has informed the secretariat that fibre-optic cables, because of their fundamentally different construction technique, cannot fulfil the requirements of Annex 2, Article 3, paragraph 10. The fibre-optic lines run along the full length of the cable and cannot be riveted through.

16. This means that if the Working Party would decide to amend Annex 2, Article 3, paragraph 9 to the extent that it would allow for the use of other materials, in particular fibre-optic cables, as fastenings, it would also have to decide to amend paragraph 10 of the said article. A possible

solution may be found in slightly changing the second phrase of the said paragraph, to read as follows:

“(…) In case rope of steel wire, hemp or sisal is used, the rope... etc. etc.”

17. Thus, the basic requirements of paragraph 10 would apply to all types of fastening, but the specific requirement of the split cable around the rivet would only apply to ropes of steel wire, hemp or sisal.

18. A final point concerns a reference to the existence of fibre-optic cables. The proposed amendments to paragraphs 9 and 10 intend to widen the general scope of the provisions regarding fastenings ropes, making it possible to use other types of fastening ropes, without any particular reference to the use of fibre-optic cables. If appropriate, the Working Party may wish to consider the adoption of a comment, specifically addressing the use of fastening cables with fibre-optic protection. To facilitate the discussion, the secretariat has prepared the following draft comment:

“Comment to Article 3, paragraph 10

Fastenings with fibre-optic protection

The use of fastening cables, consisting of batches of fibre-optic lines, spirally wound and with a sheath of unstretchable plastic is admissible, as long as the conditions set out in Annex 2, Article 1 (a) and (b) and Article 3, paragraphs 9 and 10 are met.”

E. CONCLUSIONS

18. First of all, the Working Party is requested to answer the question whether or not it wants to accept the fastening cable with fibre-optic protection as a Customs secure type of fastening. If yes, then the Working Party should address the issue of the current text of Annex 2, Article 3, paragraph 9 and discuss how to enlarge its scope, so that it takes account of, inter alia, the fibre-optic cable. The Working Party may wish to use the two options, proposed by the secretariat, as a starting point for its discussion. In addition, the Working Party is asked to look at the text of Annex 2, Article 3, paragraph 10 and decide, possibly with the help of the proposal formulated by the secretariat, on an alternative wording of its text, which would take account of the fact that, according

to a manufacturer of such cables, fibre-optic cables cannot be riveted through. Finally, the Working Party may wish to discuss the possible insertion of a new comment into the Handbook, addressing the specific use of fastening cables with fibre-optic protection as a Customs secure type of fastening within the context of the TIR Convention.

Annex

Appendix to Specific Annex e, Chapter 1 of the revised Kyoto Convention

A. Customs seals and fastening shall meet the following minimum requirements:

1. General requirements in respect of seals and fastenings:

The seals and fastenings shall:

- (a) be strong and durable;
- (b) be capable of being affixed easily and quickly;
- (c) be capable of being readily checked and identified;
- (d) not permit removal or undoing without breaking or tampering without leaving traces;
- (e) not permit use more than once, except seals intended for multiple use (e.g. electronic seals);
- (f) be made as difficult as possible to copy or counterfeit.

2. Physical specifications of seals:

- (a) the shape and size of the seal shall be such that any identifying marks are readily distinguishable;
- (b) each eyelet in a seal shall be of a size corresponding to that of the fastening used, and shall be positioned so that the fastening will be held firmly in place when the seal is closed;
- (c) the material used shall be sufficiently strong to prevent accidental breakage, early deterioration (due to weather conditions, chemical action, etc.) or undetectable tampering:
 - (a) the material used shall be selected by reference to the sealing system used.

3. Physical specifications of fastenings:

- (a) the fastening shall be strong and durable and resistant to weather and corrosion;
- (b) the length of the fastening used shall not enable a sealed aperture to be opened or partly opened without the seal or fastening being broken or otherwise showing obvious damage;
- (c) the material used shall be selected by reference to the sealing system used.

4. Identification marks:

The seal or fastening shall be marked:

- (a) to show that it is a Customs seal, by application of the word “Customs” preferably in one of the languages of the Council (English or French);
- (b) to show the country which affixed the seal, preferably by means of the sign used to indicate the country of registration of motor vehicles in international traffic;
- (c) to enable the Customs office which affixed the seal, or under whose authority the seal was affixed, to be identified, for example, by means of code letters or numbers.

B. Seals or fastening affixed by authorized consignors and other authorized persons for Customs transit purposes to ensure security for Customs purposes shall offer physical security comparable to that of seals affixed by the Customs and shall make it possible to identify the person who affixed those seals, by means of number to be entered on the transit document.
