
Economic Commission for Europe

Inland Transport Committee

25 August 2021

Working Party on the Transport of Dangerous Goods

Joint Meeting of Experts on the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)

Thirty-eighth session

Geneva, 23-27 August 2021

Item 3 (b) of the provisional agenda

Implementation of the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN): matters related to classification societies

Use of consistent terminology on intact stability calculations at 9.3.1.14.2, 9.3.2.14.2 and 9.3.3.14.2, (a) and (b)

Transmitted by the Group of ADN Recommended Classification Societies

1. The Group of ADN Recommended Classification Societies would like to draw the ADN Safety Committees attention to different terminology applied for the stability requirements regarding “watertight” and “weathertight” openings of the vessels construction for intact stability calculations mentioned in 9.3.1.14.2, 9.3.2.14.2 and 9.3.1.14.2, (a) and (b).
2. Definitions of the relevant terms are part of the ADN framework. “Watertight means a structural component or device so fitted as to prevent any ingress of water. Weathertight means a structural component or device so fitted that in normal conditions it allows only a negligible quantity of water to penetrate.”
3. The provisions regarding intact stability are repeated for several vessel types and apparently at 9.3.x.14.2 (a) and (b) the wrong term “non-watertight”, instead of “non-weathertight” is two times applied, and only in the English version. In the French and German versions, the correct terminology “non-weathertight” is applied.

For vessels with cargo tanks of more than 0.70 B in width, proof shall be furnished that the following stability requirements have been complied with:

(a) In the positive area of the righting lever curve up to immersion of the first ~~non-watertight~~ non-weathertight opening there shall be a righting lever (GZ) of not less than 0.10 m;

(b) The surface of the positive area of the righting lever curve up to immersion of the first ~~non-watertight~~ non-weathertight opening and in any event up to an angle of heel < 27° shall not be less than 0.024 m.rad;

4. The Annex 1 to this document reflects the inconsistencies in wording in article 9.3.x.14.2 (a) and (b) in the present version of ADN 2021.

Proposal

5. The Safety Committee is invited to update the English version of 9.3.x.14.2, (a) and (b) and replace two times the term “non-watertight” by the term “non-weathertight”.

ANNEX 1

ADN 2021 - Comparison of language versions

- Consistent wording highlighted in **green**
- Inconsistent wording highlighted in **yellow** (EN version only, DE and FR versions are consistent within itself as well as between languages)

<p>9.3.x.14.2</p>	<p>For vessels with cargo tanks of more than 0.70 B in width, proof shall be furnished that the following stability requirements have been complied with:</p> <p>(a) In the positive area of the righting lever curve up to immersion of the first non-watertight opening there shall be a righting lever (GZ) of not less than 0.10 m;</p> <p>(b) The surface of the positive area of the righting lever curve up to immersion of the first non-watertight opening and in any event up to an angle of heel < 27° shall not be less than 0.024 m.rad;</p> <p>(c) The metacentric height (GM) shall be not less than 0.10 m.</p> <p>These conditions shall be met bearing in mind the influence of all free surfaces in tanks for all stages of loading and unloading.</p>	<p>Für Schiffe mit Tankbreiten von mehr als 0,70 B sind folgende Stabilitätsforderungen nachzuweisen:</p> <p>a) Innerhalb des positiven Bereiches der Hebelarmkurve bis zum Eintauchen der ersten nicht wetterdicht verschlossenen Öffnung muss ein aufrichtender Hebelarm (GZ) von mindestens 0,10 m vorhanden sein.</p> <p>b) Die Fläche des positiven Bereiches der Hebelarmkurve bis zum Eintauchen der ersten nicht wetterdicht verschlossenen Öffnung, jedoch vor einem Neigungswinkel <input type="checkbox"/> 27°, darf 0,024 m.rad nicht unterschreiten.</p> <p>c) Die metazentrische Höhe (MG) muss mindestens 0,10 m betragen.</p> <p>Diese Anforderungen müssen eingehalten werden unter Berücksichtigung des Einflusses aller freien Flüssigkeitsoberflächen in Tanks für alle Stadien des Be- und Entladens.</p>	<p>Pour les bateaux dont les citernes à cargaison sont d'une largeur supérieure à 0,70 B, le respect des prescriptions de stabilité suivantes doit être prouvé:</p> <p>a) Dans la zone positive de la courbe du bras de redressement jusqu'à l'immersion de la première ouverture non étanche aux intempéries il doit y avoir un bras de redressement (GZ) d'au moins 0,10 m;</p> <p>b) La surface de la zone positive de la courbe du bras de redressement jusqu'à l'immersion de la première ouverture non étanche aux intempéries, toutefois à un angle d'inclinaison inférieur ou égal à 27°, ne doit pas être inférieure à 0,024 m.rad;</p> <p>c) La hauteur métacentrique (MG) doit être au minimum de 0,10 m.</p> <p>Ces conditions doivent être remplies compte tenu de l'influence de toutes les surfaces libres dans les citernes pour tous les stades de chargement et de déchargement.</p>
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