Font for Tyre Identification Number

1. PROPOSAL

OICA proposal for amendment to the draft text of the gtr (only the bold text is changed):

"3.2.1.5.   The Tyre Identification Number shall be located on the intended outboard sidewall of the tyre, and positioned between the bead and 50% of the distance from the bead to the tread. On the other sidewall of the tyre either a tyre identification number or a partial tyre identification number is required. The partial tyre identification number is comprised of all characters except the date code.

3.2.1.6.   The content of the manufacturer's code is optional, but the data field is not.

3.2.1.7.   The symbols to be used in the tyre identification number format are A, B, C, D, E, F, H, J, K, L, M, N P, R, T, U, V, W, X, Y, 1, 2, 3, 4, 5, 6, 7, 8, 9, 0.

3.2.1.8.   The symbols that shall not be used are G, I, O, Q, S, and Z.

3.2.1.9.   The Tyre Identification Number shall be

3.2.1.9.1.   easily legible by automated optical character recognition systems, and

3.2.1.9.2.   of a character size not less than [6.35 mm (0.25 inch)] high, and

3.2.1.9.3.   permanently moulded with a depth between [0.508 mm (0.020 inch) and 1.016 mm (0.040 inch)].

3.2.1.10   The font of the of Tyre Identification Number shall be:

3.2.1.10.1.   Futura Bold, Modified Condensed or Gothic font, or

3.2.1.10.2.   the font OCR-B as defined in ISO 1073-2:1976."

JUSTIFICATION

The Tyre Identification Number font and size need to be accurately defined to ensure readability.

Some vehicle manufacturers use this marking, based on the NHTSA rule 49 CFR Part 574.10, to ensure that the right tyres are mounted on the right vehicles and to keep track of the tyres mounted on each vehicle, while labelling systems are proven unreliable and expensive.

Automated optical character recognition of the complete Tyre Identification Number is an efficient way to minimize misreadings and to simplify the recording of Tyre Identification Numbers.

Paragraph 3.2.1.8. of the Tyre GTR already partially addresses the problem of automated optical character recognition by prohibiting some characters which do not sufficiently differentiate from each other. However, to allow the automated optical character recognition to work on a black rubber surface in an industrial environment there need to be more limitations to the shape of the characters allowed.

The proposed font, OCR-B, is developed to ensure reliable readings by automated optical character recognition as well as by the human eye. The use of this font is widely spread in many other implementations.

This OICA proposal evolved compared to the previous document TYREgtr-09-05 in that it refers now to the current text of the draft gtr, as updated per document TYREgtr-12-01, and clearly defines the minimum character sizes and mandates some particular fonts.

The proposed sizes are indicated between [ ] as OICA has no position on the sizes nor on their accuracy.