

Interpretation of Regulation No. 106: Application of the load/speed test procedure

The current text concerning the load/speed test on pneumatic tyres for agricultural vehicles and their trailers, Regulation No. 106 is ambiguous.

The tyre has to be tested according paragraph 6.5.3.

This paragraph refers to the procedure as given in Annex 9 of this Regulation.

Annex 9, paragraph 1.1. refers to paragraph 3.4.

Paragraph 3.3. in this Annex 9 defines the mass to be applied.

Paragraph 3.3.1. in the Annex describes the test load in the table in paragraph 3.4. in case of tyres marked with speed symbol D. (see relevant text below)

We believe that the load/speed test is applicable on all tyres since paragraph 6.5.3. doesn't exclude any speed category.

The question raised is:

Is the load/speed test only applicable on tyres with speed symbol D or on all tyres?

The text has to be improved based on the conclusion of GRRF.

Current text of the Regulation: :

6.5.3. The test procedures to assess the suitability of the tyre for the claimed performances are described in annex 9.

6.5.3.1. A tyre which, after undergoing the relevant load/speed test, does not exhibit any tread separation, ply separation, cord separation or broken cords is deemed to have passed the test. The tyre tested shall not be used for any other tests.

6.5.3.2. A tyre which, after undergoing the relevant load/speed test, does exhibit chunking, due to the specific test conditions is deemed to have passed the test.

6.5.4. Where a tyre manufacturer produces a range of tyres it is not considered necessary to carry out tests on every type of tyre in the range.

Annex 9

LOAD/SPEED TEST PROCEDURE

1. Scope and range of application

1.1. **This test procedure is applicable for new tyres corresponding to the characteristics specified in paragraph 3.4. below.**

1.2. It serves the purpose to assess the suitability of the tyre for the claimed performances.

2. Preparing the tyre

2.1. Mount new tyres on the test rim specified by the manufacturer pursuant to paragraph 4.1.10. of this Regulation.

2.1.1. To seat the beads do not exceed the maximum pressure marked on the tyre sidewalls.

2.2. Use a new inner tube when testing tyres with inner tubes (i.e. tyres not bearing the marking "Tubeless").

- 2.3. With the tyre beads properly seated on the rim, inflate the tyre to the pressure corresponding to the test pressure specified by the tyre manufacturer for the type of test programme, pursuant to paragraph 4.1.15. of this Regulation.
- 2.4. Condition the tyre and wheel assembly at test room temperature for not less than three hours.
- 2.5. Readjust the tyre pressure to that specified in paragraph 2.3. above.
- 2.6. On request of the tyre manufacturer proceed with the test programme as specified in either of the following paragraphs:
 - test procedure in a laboratory on a test drum (paragraph 3 below), or
 - test procedure on a road using a trailer (paragraph 4).

3. Test procedure on a test drum

- 3.1. Mount the tyre and wheel assembly on the test axle and press it against the outer face of a smooth power-driven test drum 1.70 m " 1 % in diameter having a surface at least as wide as the tyre tread.
 - 3.1.1. Drum widths narrower than the tyre tread pattern may be used if the tyre manufacturer agrees.
- 3.2. Test drum speed : 62.5 revolutions per minute..3. Apply to test axle a series of masses in accordance with the load/speed test programme shown in paragraph 3.4. below, **with reference to the test load which equates:**
 - 3.3.1. the mass corresponding to load index marked on the tyre **in case of tyres marked with speed symbol D.**

3.4. Load/speed test programme:

Tyre speed category symbol	test step	percentage of the test load	duration (hours)
D	1	66 %	7
	2	84 %	16
	3	101 %	24

- 3.5. The tyre pressure must not be corrected throughout the test and the test load must be kept constant throughout each of the three test steps.
- 3.6. During the test the temperature in the test room must be maintained at between 20 EC and 30 EC or at another temperature if the manufacturer so agrees.
- 3.7. The load/speed test programme must be carried out without interruption.

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