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Agricultural machinery — Rotary and flail mowers — Test methods and acceptance criteria for protective skirts

Matériel agricole — Faucheuses rotatives et faucheuses-broyeuses — Méthodes d'essai des jupes de protection et critères d'acceptation

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Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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Agricultural machinery — Rotary and flail mowers — Test methods and acceptance criteria for protective skirts

1 Scope

This International Standard gives specifications and acceptance criteria for testing the protective skirts of rotary and flail mowers used in agriculture.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 525, *Bonded abrasive products — General requirements*

ISO 845, *Cellular plastics and rubbers — Determination of apparent (bulk) density*

3 Testing of protective canvas

NOTE The possibility of using canvas tested according to other ISO standards will be considered when a revision is undertaken.

3.1 Tensile resistance test

3.1.1 Procedure

Cut five horizontal and five vertical samples, 50 mm in width, from a protective canvas and test each in a tensile test machine, allowing a 250 mm sample length to be subjected to a tractive force increasing at a rate of 11 N/s.

3.1.2 Acceptance criteria

Test results are considered to be acceptable when the average tensile resistance for horizontal and vertical samples is $\geqslant$ 3 000 N.

3.2 Perforation resistance test

3.2.1 Procedure

Take five circular samples from protective canvas. Place each sample into a device leaving a free testing zone of 100 mm diameter. Submit each sample to an increasing load of 11 N/s by means of a punch of 10 mm $\times$ 10 mm section having a chamfer of 1 mm $\times$ 45°.

3.2.2 Acceptance criteria

Test results are considered to be acceptable when the average perforation force calculated from all the tests is 1 000 N minimum and when the average perforation energy calculated from all tests is not less than 8 N·m.

3.3 Wear resistance test

3.3.1 Procedure

Cut a sample 200 mm wide from the full height of the protective canvas. Place this sample on an abrasive machine so that a 400 cm^2 surface area of the sample's free end rests on the abrasive wheel, which shall be 200 mm wide and have a diameter of 800 mm. Fit the wheel with a 24 grain size abrasive belt (see ISO 525) and run it at 25 min^{-1}.

The load on the 400 cm^2 surface shall be 5 N. In order to obtain uniform pressure, the sample pressure pad shall match the shape of the wheel and be coated with a layer 30 mm thick of polystyrene having a density of 35 (see ISO 845).

3.3.2 Acceptance criteria

Test results are considered to be acceptable when

— on an armoured canvas, reinforcement fibres are not worn through after 10 000 rotations, or

— on a non-armoured canvas, the thickness is still at least half that of the original thickness after 10 000 rotations.

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