
**Machinery for forestry — Glazing and
panel materials used in operator
enclosures for protection against thrown
sawteeth — Test method and
performance criteria**

*Matériel forestier — Matériaux pour vitrage et panneaux utilisés dans
l'enceinte de l'opérateur contre la projection des dents de scie —
Méthode d'essai et critères de performance*



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Foreword

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Introduction

Forestry machines that use circular saws with replaceable sawteeth can expose the operator to the hazard of thrown sawteeth. Operator enclosures on forestry machinery provide protection from a variety of hazards by interposing a system of structural members and panel materials between the operator and potential hazards (see, for example, ISO 8083 for falling objects or ISO 8084 for poking hazards).

When there is a hazard from circular-saw thrown sawteeth, panel and glazing materials used in operator enclosures can be appropriately selected to provide operator protection based upon this International Standard. Although surfaces meeting the criteria given in this International Standard might not give protection under all conceivable circumstances in which the machine could be impacted by thrown sawteeth, it is expected that protection against sawteeth thrown from circular saws will be provided under normal operating conditions.

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Machinery for forestry — Glazing and panel materials used in operator enclosures for protection against thrown sawteeth — Test method and performance criteria

CAUTION — Some of the tests specified in this International Standard involve the use of processes which could lead to a hazardous situation.

1 Scope

This International Standard specifies test procedures and performance requirements for determining the protective ability of panel materials used in forestry-machinery operator enclosures intended to protect the operator against sawteeth thrown by circular-saw components. This particular type of hazard is specifically defined by the size and velocity of the sawteeth and is unique to these cutting devices.

This International Standard is applicable to panel materials for forestry machines defined in ISO 6814 that include an integrated or attached circular-sawing device, controlled or powered by the primary machine (e.g. topping saws, felling saws or bucking saws).

It does not address protection from chain-shot hazards (see ISO 11837).

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 6814, *Machinery for forestry — Mobile and self-propelled machinery — Terms, definitions and classification*

3 Tests

3.1 Test equipment

3.1.1 Projectile launcher, capable of propelling the specified test projectiles at the required velocities. The launcher shall have a controllable means of adjusting velocity. The launcher shall also have a means of orienting and directing the test projectile in relatively linear motion with the cutting surface towards the target. The test projectile may be supported in the launcher by a test projectile holder (i.e. a sabot). Such a test projectile holder should be less than 10 % of the mass of the tooth projectile being propelled, and any impact of the holder on the test panel shall be clearly inconsequential to the test result (see Figure 1).

3.1.2 Test projectile (F1), consisting of a representative four-pointed sawtooth, 300 g \pm 5 g, with a cutting surface 50 mm \pm 1 mm square (see Figure 2).

3.1.3 Test projectile (F2), consisting of a representative, four-pointed sawtooth, 800 g \pm 5 g, with a cutting surface 60 mm \pm 1 mm square (see Figure 2).