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## **Machinery for forestry — Saw chain shot guarding systems — Test method and performance criteria**

*Matériel forestier — Système de protection contre l'éjection d'éléments de chaînes de scie — Méthode d'essai et critères de performance*



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## Foreword

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Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 11837 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 15, *Machinery for forestry*.

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## Introduction

On the basis of a risk analysis, the types of saw chain breakage can be determined and a saw chain shot guarding system selected that protects against these risks.

Harvester heads and grip saws need an effective saw chain shot guarding system. However, no such system can give 100 % safety protection against a saw chain shot. This International Standard specifies a method for evaluating the performance of a guarding system for the prevention of saw chain shot from behind the drive sprocket and upwards, relative to the direction of movement of the saw chain.

The test apparatus specified in this International Standard is designed to simulate the situation in which the saw chain becomes stuck in the wood at a cut and is broken. The end of the saw chain passes the drive sprocket in the guide bar plane. At different saw chain speeds and combinations of distance to the saw chain breakage, the break force, guide bar geometry and saw chain preload will throw the saw chain in a curve, producing a whiplash that could create a chain shot.

The test procedures presented in this International Standard can be used to evaluate a guarding system's ability to prevent the saw chain from producing whiplash and chain shot.