BS ISO 21876:2020

BSI Standards Publication

Machinery for forestry — Saw chain shot protective windows — Test method and performance criteria

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National foreword

This British Standard is the UK implementation of ISO 21876:2020.

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A list of organizations represented on this committee can be obtained on request to its committee manager.

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Foreword

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This document 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 protective window selected that provides protection against these risks.

Saw chain shots can be generated if the saw chain is broken on the upper or lower side of the guide bar as well as when broken at the nose sprocket. ISO 11837 provides requirements for a saw chain guarding system that provides protection against saw chain breakage on the cutting (lower) side of the bar. When a saw chain is broken on the upper side or at the nose sprocket, the guarding system according to ISO 11837 does not protect from saw chain shots generated in the direction of the guide bar seen from position of the drive sprocket.

This document establishes a test method and performance criteria for windows intended to provide protection against saw chain shot.

The test apparatus specified in this document is designed to simulate the situation in which the saw chain 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 can create a saw chain shot.

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