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## Machinery for forestry — Portable chain-saw safety requirements and testing —

### Part 1: Chain-saws for forest service

#### AMENDMENT 1: Balance

*Matériel forestier — Exigences de sécurité et essais des scies à chaîne portatives —*

*Partie 1: Scies à chaîne pour travaux forestiers*

*AMENDEMENT 1: Équilibre*

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Amendment 1 to ISO 11681-1:2004 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 17, *Manually portable forest machinery*.

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# Machinery for forestry — Portable chain-saw safety requirements and testing —

## Part 1: Chain-saws for forest service

### AMENDMENT 1: Balance

With the revision of ISO 8334, the requirements for balance will be removed and ISO 8334 will specify only a test method for determining balance. Additionally, maintaining a requirement for static balance for saws with an engine displacement over 80 cm<sup>3</sup> has been found to be of no value from a safety point of view. This Amendment clarifies subclause 5.4 on these points.

Furthermore, an error was detected concerning the requirement relating to kickback and chain stop angles in subclause 5.5.3.1. In ISO 11681-1:1996, the requirement could be met by determination of either the kickback angle or the stop angle. However, in the final published version of ISO 11681-1:2004, it was incorrectly stated that both were required to be determined. This amendment corrects the error.

*Page 1, Clause 1*

Replace the final paragraph with the following:

“This part of ISO 11681 does not cover the hazard from kickback (see 5.5.1.3) or balance (see 5.4.1) for machines with an engine displacement of more than 80 cm<sup>3</sup>.”

*Page 6, 5.4*

Replace the subclause with the following:

#### 5.4 Balance

##### 5.4.1 Requirements

Chain-saws with an engine displacement of 80 cm<sup>3</sup> or less shall be evenly balanced.

The maximum angle between the centreline of the guide bar and the horizontal plane (longitudinal balance) shall not exceed  $\pm 30^\circ$ .

The limit shall be met by the shortest and longest guide bars. The range of applicable guide bars shall be described in the instruction handbook.

NOTE Sufficient information to set a limit is not available for saws of more than 80 cm<sup>3</sup>.

##### 5.4.2 Verification

The angle for longitudinal balance shall be verified by functional testing in accordance with ISO 8334.

*Page 7, 5.5.3.1*

Replace the subclause with the following:

**5.5.3.1 Requirements**

The computed kickback angle or the chain stop angle, whichever is less, shall be determined for each cutting attachment specified and shall not exceed 45° for saws with a combustion engine displacement of up to 80 cm<sup>3</sup>.

NOTE Sufficient information to set a limit is not available for saws of more than 80 cm<sup>3</sup>.

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