

INTERNATIONAL
STANDARD

ISO
9518

Third edition
2018-07

**Forestry machinery — Portable chain-
saws — Kickback test**

Matériel forestier — Scies à chaîne portatives — Essai de rebond



Reference number
ISO 9518:2018(E)

© ISO 2018



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Test method	2
4.1 Principles.....	2
4.2 Chain-saw configuration.....	2
4.2.1 General.....	2
4.2.2 Chain-saw families.....	3
4.2.3 Requirements for testing bars and saw-chains.....	3
4.3 Equipment and materials to determine CKA.....	3
4.4 Preparation	3
4.4.1 General.....	3
4.4.2 Physical measurements of chain-saw	4
4.4.3 Dimensional measurements.....	4
4.4.4 Chain-saw and saw-chain preparation	5
4.4.5 Kickback machine preparation	7
4.4.6 Chain-saw installation and alignment.....	7
4.4.7 Balance saw/clamp/cradle assembly.....	7
4.4.8 Horizontal friction measurements	8
4.4.9 Rotary friction measurements	9
4.4.10 Horizontal & rotary restraining systems alignment	10
4.4.11 Impact velocity adjustment.....	12
4.5 Test requirements and procedures.....	13
4.5.1 Test requirements.....	13
4.5.2 Kickback testing procedure	15
4.5.3 Kickback energy determination.....	15
4.5.4 Termination of test sequence.....	16
4.5.5 Chain brake energy determination.....	16
4.5.6 Chain brake actuation angle measurement	20
4.5.7 Chain brake stopping time measurement	21
4.6 Kickback angle computation.....	21
4.6.1 General.....	21
4.6.2 Input data	21
4.6.3 Computation and results.....	22
5 Test report	22
Annex A (normative) Computer program flowchart	23
Annex B (normative) Procedure for hardness testing of Medium Density Fibreboard (MDF)	34
Annex C (informative) Test record	36
Annex D (informative) Chain-saw centre of gravity and inertia measurement	39
Annex E (informative) Computer program checkout models	45
Bibliography	53