
**Forest machinery — Backpack power units
for brush-cutters, grass-trimmers,
pole-cutters and similar appliances —
Safety requirements and testing**

*Matériel forestier — Sources motrices portées à dos utilisées pour entraîner
les débroussailleuses, les coupe-herbe, les scies à perche et autres
appareils similaires — Exigences de sécurité et essais*



Contents	Page
1 Scope	1
2 Normative references	1
3 Definitions	2
4 Safety requirements	2
4.1 Exhaust system.....	2
4.2 Controls	2
4.2.1 Throttle trigger	3
4.2.2 Engine-stopping device	3
4.3 Handgrip	3
4.4 Engine support.....	3
4.5 Harness.....	3
4.6 Power driven components.....	3
4.7 Hydraulic and pneumatic pipes and hoses.....	4
4.8 Protection against contact with hot parts.....	4
4.9 Protection against contact with parts under high voltage	4
4.10 Tank openings.....	4
4.11 Starting device	5
4.12 Clutch.....	5
5 Verification of safety requirements.....	5
6 Markings	5
7 Instruction handbook	6
Annex A (normative) List of hazards.....	8

© ISO 1998

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet central@iso.ch
X.400 c=ch; a=400net; p=iso; o=isocs; s=central

Printed in Switzerland

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 14740 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 17, *Manually portable forest machinery*.

Requirements for hazards not covered in this International Standard are given in ISO/TR 12100.

Annex A forms an integral part of this International Standard.

Forest machinery — Backpack power units for brush-cutters, grass-trimmers, pole-cutters and similar appliances — Safety requirements and testing

1 Scope

This International Standard specifies the safety requirements and their verification for the design and construction of backpack power units incorporating a combustion engine as a power source to power brush-cutters, grass-trimmers, pole-cutters and similar appliances.

It describes methods for the elimination or reduction of hazards arising from the use of the backpack power units, but does not cover hazards resulting from the use of the attached appliance. Therefore this International Standard cannot be used alone for the assessment of the machine safety aspects for a machine with a backpack power unit, and must only serve as a reference for specifications concerning the backpack power unit itself. It does not specify any technical requirements to reduce noise and whole body vibration hazards. Indeed the different means available to reduce these hazards are a matter for the technical aids to which the manufacturer may resort, through specialized books or specific bodies.

NOTE — An agreed method to measure whole body vibration from the backpack power unit is presently not available.

The list of significant hazards requiring action to reduce the risk is given in annex A.

Environmental aspects have not been considered in this International Standard.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3767-5:1992, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Symbols for operator controls and other displays — Part 5: Symbols for manual portable forestry machinery.*

ISO 6531:—¹⁾, *Machinery for forestry — Portable hand-held chain-saws — Vocabulary.*

ISO 7112:—²⁾, *Machinery for forestry — Portable hand-held brush-cutters and grass-trimmers — Vocabulary.*

ISO 11684:1995, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Safety signs and hazards pictorials — General principles.*

¹⁾ To be published. (Revision of ISO 6531:1982)

²⁾ To be published. (Revision of ISO 7112:1982)