

American National Standard

*for Consumer Turf Care Equipment –
Walk-Behind Mowers and
Ride-On Machines with Mowers –
Safety Specifications*



ANSI®

B71.1-2003

Revision of ANSI/OPEI B71.1-1998

American National Standard
for Consumer Turf Care Equipment –
Walk-Behind Mowers and Ride-On
Machines with Mowers –
Safety Specifications

Sponsor

Outdoor Power Equipment Institute

Approved September 23, 2003

American National Standards Institute, Inc.

American National Standard

Approval of an American National Standard requires review by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer.

Consensus is established when, in the judgement of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made towards their resolution.

The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he has approved the standards or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken periodically to reaffirm, revise, or withdraw this standard. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

Published by

**American National Standards Institute, Inc.
25 West 43rd Street, New York, NY 10036**

Copyright © 2004 by American National Standards Institute
All rights reserved.

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without prior written permission of the publisher.

Printed in the United States of America

Contents

	Page
Foreword	iii
Part I: General	
1 Scope	1
2 Normative references	1
3 Definitions	3
Part II: Walk-Behind Mowers	
4 Controls	6
5 Shields or guards.....	6
6 Servicing.....	7
7 Electrical requirements	7
8 Label durability requirements	8
9 General requirements (Blade rotation warning).....	8
10 Specific requirements - Rotary mowers.....	9
11 Specific requirements - Reel mowers.....	18
12 Safety messages for walk-behind mowers	19
Part III: Ride-on mowers, lever steer mowers, lawn tractors, and lawn and garden tractors	
13 Identification	20
14 Controls	20
15 Shields or guards.....	26
16 Servicing.....	28
17 Electrical requirements	28
18 Label durability requirements	29
19 Requirements for ride-on machines	29
20 Safety messages for ride-on machines	35
21 General requirements for ride-on rotary and reel mowers.....	36
22 Specific requirements for ride-on rotary mowers and mower attachments	37
Figures	
1 Single-blade walk-behind mowers.....	46
2 Multiblade walk-behind mowers	46
3 Impact test fixtures	47
4 Thrown object test fixture	48
5(a) Safety messages for walk-behind mowers	56

	Page
5(b) Safety instructions for walk-behind mowers	57
6 Finger probe	60
7 Safety messages for ride-on machines	61
8 Safety instructions for ride-on mowers	62
9 Characteristic dimensions of a ride-on machine.....	66
10 Ride-on machine	67
11 Probe test fixture	68
12 Fixture for structural integrity	69
 Annexes	
A Rationale	72
B Pictorials.....	87
C CPSC Requirements for walk-behind mowers	93
D Bibliography.....	109

Foreword (This foreword is not part of American National Standard ANSI B71.1-2003.)

This standard is a revision of *American National Standard for Consumer turf care equipment – Walk behind mowers and ride-on machines with mowers – Safety specifications*, ANSI/OPEI B71.1-1998. The first edition of this standard was approved and published by the American National Standards Institute in 1960. It has been revised twelve times since initial publication, including this revision.

Consensus for this standard was achieved by use of the Canvass Method.

This standard contains four informative annexes, all of which are not considered part of this standard.

Suggestions for improvement of the standard will be welcomed. They should be sent to the Outdoor Power Equipment Institute, 341 South Patrick Street, Alexandria, VA 22314.

The following organizations recognized as having an interest in the standardization of safety requirements for walk-behind mowers and ride-on machines with mowers were contacted prior to the approval of this revision of the standard. Inclusion in the list does not necessarily imply that the organization concurred with the submittal of the proposal to ANSI.

American Consulting
Association of Landscape Contractors of America
Consumer Product Safety Commission (CPSC)
Deere & Company
Equipment Manufacturers Institute (EMI)
McCanse Consulting
Mordge Manufacturing
Murray
North American Equipment Dealers Association
Outdoor Power Equipment Aftermarket Association
Service Dealers Association
Toro
Woods Equipment Company
Underwriters Laboratories, Inc.
US Testing Company, Inc.

American National Standard
for Consumer Turf Care Equipment –

Walk-Behind Mowers and Ride-On Machines with Mowers – Safety Specifications

Part I: General

1 Scope

The safety specifications given in this standard are for (a) reel and rotary walk-behind power lawn mowers, (b) reel and rotary ride-on power lawn mowers, (c) ride-on power lawn tractors with mower attachments, (d) ride-on power lawn and garden tractors with mower attachments, and (e) lever steer ride-on mowers. They are intended to provide safety requirements and to help ensure uniform operator environments. These specifications are intended to apply to products specifically intended as consumer products for the personal use of a consumer around a house. These specifications are not intended to apply to commercial products customarily used by hired operators or to products designed primarily for agricultural purposes such as defined in SAE J1116 or SAE J1150. They are not intended to cover sulky-type units, walk-behind tractors, flail mowers, sickle bar mowers, or rotary mowers not provided by the tractor manufacturer, and are not intended to completely cover electrical requirements. This standard is intended to apply to all aftermarket parts and accessories not provided by the original equipment manufacturer.

The U.S. Consumer Product Safety Commission (CPSC) has promulgated a mandatory standard relating to certain aspects of walk behind power lawn mower operations (Safety Standards for Power Lawn Mowers, CPSC 16/CFR Part 1205). A copy of the CPSC mandatory standard is contained in Annex C. The CPSC standard contains requirements that must be met by manufacturers of walk-behind lawn mowers.

2 Normative references

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

ANSI Z535.4-2002, *Product safety signs and labels*¹⁾

ANSI/OPEI B71.4-1999, *Commercial turf care equipment - Safety specifications*

¹⁾ ANSI Standards are available from the American National Standards Institute, 25 West 43rd Street, New York, NY 10036.