

Sweepers - Part 4: Symbols for operator controls and other displays

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 15429-4:2015 sisaldab Euroopa standardi EN 15429-4:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 15429-4:2015 consists of the English text of the European standard EN 15429-4:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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ICS 01.080.30; 43.160

English Version

## Sweepers - Part 4: Symbols for operator controls and other displays

Balayeuses - Partie 4: Symboles pour les commandes de l'opérateur et autres afficheurs

Kehrmaschinen - Teil 4: Symbole für Bedienelemente und andere Anzeigen

This European Standard was approved by CEN on 3 January 2015.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
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## Foreword

This document (EN 15429-4:2015) has been prepared by Technical Committee CEN/TC 337 "Road operation equipment and products", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2015, and conflicting national standards shall be withdrawn at the latest by September 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document (EN 15429-4:2015) is part of a series of documents made up of the following parts:

- EN 15429-1, *Sweepers — Part 1: Classification and Terminology*;
- EN 15429-2, *Sweepers — Part 2: Performance requirements and test methods*;
- EN 15429-3, *Sweepers — Part 3: Efficiency of particulate matter collection — Testing and Evaluation*;
- EN 15429-4, *Sweepers — Part 4: Symbols for operator controls and other displays*.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

Generally, all surface cleaning machines – sweepers, are designed to clean paved surfaces of varying textures associated with areas exposed to vehicular traffic, pedestrians and those within industrial complexes.

Most of these sweepers are equipped with sweep gear to scarify debris with a pick-up system that collects and conveys the spoil into a hopper. This hopper can be discharged at dumping grounds, unloading stations, into containers or at refuse transfer stations.

Sweeping applications are mainly related to the physical size and dimensions of the sweeper. Sweepers of larger dimensions are designed to operate mainly on streets, highways, motorways, large parking areas and within industrial complexes.

Sweepers of smaller dimensions are designed for the cleaning of inner town streets, pedestrian zones, pavements, bicycle lanes, car parking facilities market places and within industrial plants etc. Manoeuvrability is one of the main features of this category of sweeper.

Depending on the dimensions, sweeping attachment equipment (e.g. equipment temporally mounted on multi-purpose carrier vehicles or other machines) may be used in similar applications as above.

Additional equipment for specialized cleaning applications; that may be attached to a sweeper is not covered by this European Standard.

This European Standard elaborates unique symbols for operator controls and other displays as applied to the machines described above and are based on recommendations of ISO/IEC 80416 (all parts).

Most symbols are constructed using a building-block approach in which various symbols and symbol elements may be combined in a logical manner to produce a particular symbol. The creation of composite symbols is unlimited and in some cases an example may be exclusive to a particular machine that has a unique feature, the symbols illustrated in the section devoted to composite symbols only depict examples of some of the more common functions and conditions of machines.

## 1 Scope

This European Standard applies to surface cleaning machines for outdoor applications in public areas, roads, airports and industrial complexes. Cleaning machines for winter maintenance and/or indoor applications are not included within the scope of this European Standard. Surface cleaning machines in terms of this standard, are self-propelled, truck mounted, attached sweeping equipment or pedestrian controlled as disclosed in EN 15429-1.

Surface cleaning machines by way of their function, have specialized equipment necessary to perform their task.

This European Standard deals with graphical symbols uniquely used to indicate the function and status of operator controls and tell-tale displays of the specialized equipment.

Common symbols that are included in other standards and applied to a wider range of machines are not included. Typically, symbols in this category that may equally be applied to surface cleaning machines can be found in ISO 2575 *Road vehicles – Symbols for controls, indicators and tell-tales*, and ISO 6405 *Earth moving machinery – Symbols for operator and other displays – Part 1: Common Symbols*.

This European Standard does not apply to machines or components that are specifically designed for cleaning tramlines and rail tracks.

Industrial sweepers, within the scope of EN 60335-2-72 are excluded from this European Standard.

This European Standard applies to machines manufactured after the approval date of the standard by CEN.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15429-1, *Sweepers — Part 1: Classification and Terminology*

EN 15429-2, *Sweepers — Part 2: Performance requirements and test methods*

ISO 2575, *Road vehicles — Symbols for controls, indicators and tell-tales*

ISO 6405-1, *Earth-moving machinery — Symbols for operator controls and other displays — Part 1: Common symbols*

ISO 7000, *Graphical symbols for use on equipment — Registered symbols*

IEC 80416-1, *Basic principles for graphical symbols for use on equipment — Part 1: Creation of graphical symbols for registration*

IEC 80416-3, *Basic principles for graphical symbols for use on equipment — Part 3: Guidelines for the application of graphical symbols*

ISO 80416-2, *Basic principles for graphical symbols for use on equipment — Part 2: Form and use of arrows*

ISO 80416-4, *Basic principles for graphical symbols for use on equipment — Part 4: Guidelines for the adaptation of graphical symbols for use on screens and displays (icons)*