SWEDISH STANDARDS INSTITUTE

SVENSK STANDARD
SS-ISO 17080:2005

Fastställd 2005-11-11

Utgåva 1

Handhållna maskiner för jord-, skogs- och trädgårdsbruk – Regler för utformning av enbilds varningsskyltar (ISO 17080:2005, IDT)

Manually portable agricultural and forestry machines and powered lawn and garden equipment – Design principles for single-panel product safety labels (ISO 17080:2005, IDT)

ICS 01.080.20; 65.060.80

Språk: engelska

Publicerad: december 2005

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The International Standard ISO 17080:2005 has the status of a Swedish Standard. This document contains the official English version of ISO 17080:2005.

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Foreword

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ISO 17080 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 14, *Operator controls, operator symbols and other displays, operator manuals*.

Introduction

There is need for a standardized system for the communication of specific safety information on products, and ISO 17080 helps meet that need by providing formats for single-panel product safety labels that can be used to fulfil the requirements of both the product and its user.

The formats for single-panel product safety labels presented in this International Standard incorporate the use of geometric shapes, colours and hazard pictorials (graphical symbols) to communicate safety information, efficiently, across language barriers.

Education is an essential part of any system of safety information. Because the amount of information necessary to enable a product to be operated or serviced safely could well be more than is able to be conveyed in a product safety label, collateral material (e.g. product literature, installation manual, operator's manual, service manual, etc.) can be used to supplement product safety labels and provide the user with additional safety information.

Manually portable agricultural and forestry machines and powered lawn and garden equipment — Design principles for single-panel product safety labels

1 Scope

This International Standard establishes principles and gives requirements for the design of single-panel product safety labels intended to be permanently affixed to manually portable agricultural and forestry machines and powered lawn and garden equipment. The main usage of these labels is on machines and equipment where the available space for locating product safety information is very limited, and where multi-panel labels are not necessary for conveying the essential safety messages.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
hazard
source of potential injury to a person

2.2
panel
area of a product safety label that has a distinctive background colour different from adjacent areas of the label, or which is clearly delineated by a border

2.3
multi-panel product safety label
product safety label that uses more than one panel to communicate the safety message

NOTE See ISO 11684.

2.4
product safety label
label on a product that informs the observer of one or more hazards and/or describes the safety precautions or actions required to avoid the hazard(s)

NOTE A product safety label communicates a hazardous situation, a precaution to avoid a hazard, and/or a result of not avoiding a hazard.

2.5
safety colour
colour with special properties to which a safety meaning is attributed

2.6
single-panel product safety label
product safety label that uses one panel to communicate the safety message

3 Safety colours and contrast colours

3.1 Purposes

There are two basic purposes for using specific colours on a product safety label. First, the use of colour rapidly draws attention to the product safety label so that it is easily noticed. Second, safety colour coding serves to identify and give meaning (through training and/or repeated exposure) to the product safety label as a whole as well as to its component parts.

Product safety labels should be conspicuous on the product. This can be achieved by

— ensuring that the safety colour of the geometric shape is sufficiently distinctive on the product surface to which the product safety label is affixed, and/or

— adding a border of a specified contrast colour (see 4.4, 4.5, 4.6), and/or

— enclosing the geometric shape within a larger rectangle of white or — for hazard description (warning) labels — of yellow or white.

3.2 Chromaticity

The chromaticity of the single-panel product safety labels shall be in accordance with Table 1.

Table 1 — Chromaticity of single-panel product safety labels

Colour		Chromaticity coordinates of corner points determining permitted colour area for standard illuminant D65 and CIE 2° standard observer			
		1	2	3	4
Red	x	0,660	0,610	0,700	0,735
	y	0,340	0,340	0,250	0,265
Yellow	x	0,494	0,470	0,493	0,522
	y	0,505	0,480	0,457	0,477
Blue	x	0,140	0,160	0,160	0,140
	y	0,140	0,140	0,160	0,160
White	x	0,305	0,335	0,325	0,295
	y	0,315	0,345	0,355	0,325
Black	x	0,385	0,300	0,260	0,345
	y	0,355	0,270	0,310	0,395

NOTE The values for red, yellow, blue and white correspond to the values for ordinary materials given in ISO 3864-1:2002, Table 3, while those for black correspond to the values in ISO 3864-1:2002, Table 2.

4 Single-panel product safety labels

4.1 Uses of label

A single-panel product safety label can be used alone to describe a hazard, a prohibited action, or a mandatory action. In many cases, both hazard description and hazard avoidance information must be communicated for the same hazard. A multi-panel product safety label (see ISO 11684) is appropriate in such cases. Alternatively, it is possible to use two or more single-panel product safety labels in conjunction with one another. For example, a single-panel hazard description (warning) product safety label may be placed adjacent to a single-panel mandatory action product safety label and/or single-panel prohibited action product safety label.

4.2 Types of label

There are three types of single-panel product safety label:

— hazard description (warning) product safety labels (see 4.4);

— prohibited action product safety labels (see 4.5);

— mandatory action product safety labels (see 4.6).

4.3 Geometric shape and colour of label

Single-panel product safety labels use geometric shapes, colours, and hazard pictorials (graphical symbols) to communicate information about hazards, prohibited actions and mandatory actions. When a geometric shape is used around a hazard pictorial, the corresponding safety colour shall identify the type of safety information to be conveyed by the hazard pictorial. See Table 2.

Table 2 — Geometric shapes and colours of single-panel product safety labels

Geometric shape	Meaning	Safety colour	Contrast colour	Hazard pictorial colour	Description
	Hazard description (Warning)	Yellow	Black	Black	Black hazard pictorial on yellow equilateral triangle enclosed by black triangular band Warns that hazard exists and describes its nature and/or consequences
	Prohibited action	Red	White	Black	Black hazard pictorial on white circle enclosed by red circular band with red diagonal bar Depicts action NOT to be taken or action to be stopped in order to avoid hazard
	Mandatory action	Blue	White	White	White hazard pictorial on blue circle Depicts action to be taken in order to avoid hazard

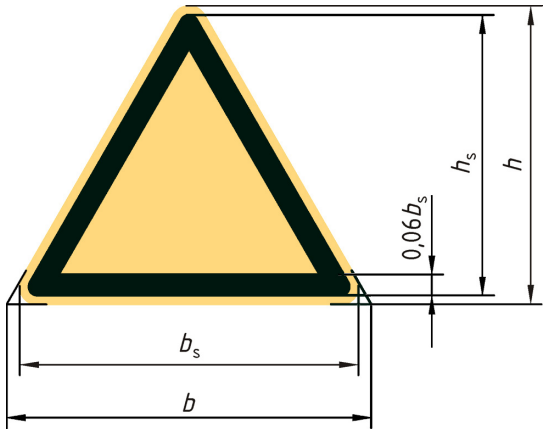
4.4 Single-panel hazard description (warning) product safety label

4.4.1 Application

Hazard description (warning) product safety labels indicate a potential personal injury hazard. Single-panel labels of this type communicate information about a hazard and/or its potential consequences by a combination of geometric shape, colour and hazard-description pictorial.

4.4.2 Format

Single-panel hazard description (warning) product safety labels shall conform to the format as shown in Figure 1. Their geometric shape shall consist of an equilateral triangular band with rounded corners of nominal radius 0,06 b. The background colour shall be yellow. The triangular band shall be black. If a border is used, it shall be yellow with a width of 0,025 b to 0,05 b. The hazard description pictorial representing the hazard shall be black. The label may be placed on a yellow or white background panel.



Colours

Background: yellow

Triangular band: black

Pictorial: black

Border: yellow

Figure 1 — Format of single-panel hazard description (warning) product safety label

4.5 Single-panel prohibited action product safety label

4.5.1 Application

Prohibited action product safety labels indicate that a specified action is not to be taken or is to be stopped in order avoid a hazard. Single-panel labels of this type communicate information about how a hazard can be avoided by a combination of geometric shape, colour, and hazard avoidance pictorial.

4.5.2 Format

Single-panel prohibited action product safety labels shall conform to the format as shown in Figure 2. Their geometric shape shall consist of a circular band with diagonal bar. The background colour shall be white. The circular band and diagonal bar shall be red. If a border is used, it shall be white with a width of 0,025 d to 0,05 d. The hazard avoidance pictorial representing the prohibited action shall be black and shall be placed within the red circular band with diagonal bar. The label may be placed on a white background panel.