

INTERNATIONAL STANDARD

ISO
3767-2

Second edition
1991-12-01

**Tractors, machinery for agriculture and forestry,
powered lawn and garden equipment —
Symbols for operator controls and other
displays —**

Part 2:

Symbols for agricultural tractors and machinery

*Tracteurs, matériels agricoles et forestiers, matériel à moteur pour
jardins et pelouses — Symboles pour les commandes de l'opérateur et
autres indications —*

Partie 2: Symboles pour tracteurs et machines agricoles



Reference number
ISO 3767-2:1991(E)

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 3767-2 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*.

This second edition cancels and replaces the first edition (ISO 3767-2:1982), incorporating Addendum 1 of 1985, of which it constitutes a technical revision.

ISO 3767 consists of the following parts, under the general title *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment* — *Symbols for operator controls and other displays*:

- Part 1: *Common symbols*
- Part 2: *Symbols for agricultural tractors and machinery*
- Part 3: *Symbols for powered lawn and garden equipment*
- Part 4: *Symbols for forestry machinery*
- Part 5: *Symbols for manual portable forestry machinery*

Annex A of this part of ISO 3767 is for information only.

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Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Symbols for operator controls and other displays —

Part 2:

Symbols for agricultural tractors and machinery

1 Scope

This part of ISO 3767 establishes symbols for use on operator controls and other displays on tractors and machinery for agriculture as defined in ISO 3339-0.

The symbols given in this part of ISO 3767 are for controls and displays specific to agricultural tractors and machinery such as combine harvesters, cotton pickers, balers and forage harvesters.

NOTE 1 The foreword lists other parts of this International Standard, where symbols for specific forms of machinery and equipment may be found.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 3767. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 3767 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 3461-1:1988, *General principles for the creation of graphical symbols — Part 1: Graphical symbols for use on equipment*.

ISO 3767-1:1991, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Symbols for operator controls and other displays — Part 1: Common symbols*.

ISO 4196:1984, *Graphical symbols — Use of arrows*.

ISO 7000:1989, *Graphical symbols for use on equipment — Index and synopsis*.

IEC 417:1973, *Graphical symbols for use on equipment — Index, survey and compilation of the single sheets*, and its supplements (IEC 417A:1974, IEC 417B:1975, IEC 417C:1977, IEC 417D:1978, IEC 417E:1980, IEC 417F:1982, IEC 417G:1985, IEC 417H:1987, IEC 417J:1990).

3 Definition

For the purposes of this part of ISO 3767, the definition given in ISO 3767-1 applies.

4 General

4.1 Symbols shall be as shown in succeeding clauses of this part of ISO 3767. However, selected symbols and selected combined symbols, which are shown in outline form in this part of ISO 3767, may be shaded in actual use for clarity of reproduction and improved visual perception by the operator, except as otherwise noted for individual symbols.

4.2 Limitations inherent in some reproduction and display technologies may require increased line thickness or other minor modifications of symbols. Such modifications are acceptable provided the symbol remains unchanged in its basic graphical elements, and easily discernible by the operator.

4.3 Additionally, to improve the appearance and perceptibility of a graphical symbol or to coordinate with the design of the equipment to which it is applied, it may be necessary to change the line thick-

ness or to round off the corners of the symbol. The graphical designer is normally free to make such changes provided that the essential perceptual characteristics of the symbol are maintained. See ISO 3461-1:1988, subclause 10.2.

4.4 For actual use, all symbols shall be reproduced large enough to be easily discernible by the operator. See ISO 3461-1 for guidelines for proper sizing of symbols. Symbols shall be used in the orientations shown in this part of ISO 3767 unless otherwise noted for individual symbols.

4.5 Most symbols are constructed using a building-block approach in which various symbols and symbol elements are combined in a logical manner to produce a new symbol.

4.6 If a symbol shows a machine or parts of a machine in a side view, a machine moving from right to left in the symbol area shall be assumed. If a symbol shows a machine or parts of a machine in an overhead (top) view, a machine moving from bottom to top in the symbol area shall be assumed.

4.7 Symbols on controls and displays shall have good contrast to their background. A light symbol on a dark background is preferred for most controls. Displays may use either a light symbol on a dark background or a dark symbol on a light background, depending upon which alternative provides the best visual perception. When a symbol image is reversed (for example, black to white and vice versa) it shall be done for the entire symbol.

4.8 Symbols shall be located on or adjacent to the control or display that is being identified. Where more than one symbol is required for a control, the symbols shall be located in relation to the control such that movement of the controls towards the symbol shall effect the function depicted by that symbol.

4.9 Arrows used in symbols shall conform to the requirements of ISO 4196. ISO 3461-1 shall be consulted for the general principles of creating symbols.

4.10 ISO/IEC registration numbers are shown for symbols in this International Standard. Registration numbers below 5000 refer to ISO 7000. Registration numbers above 5000 refer to IEC 417.

4.11 Letters and numerals may be used as symbols, but are not registered by ISO/TC 145 or published in ISO 7000. In certain clauses, letters and numerals have the meaning indicated when used in association with transmission gear controls and displays on tractors and machinery for agriculture and forestry. The fonts shown in this International Standard are not intended to be restrictive: other fonts may be substituted, but care shall be taken that legibility is maintained.

4.12 Symbols in this part of ISO 3767 are presented 32 % of original size. The grid marks "L" denote the corners of the 75 mm square of the graphic grid presented. The grid marks are not part of the symbol but are provided to ensure consistent presentation of all symbol graphics.

4.13 Microfiches of the symbols are available from the ISO/TC 145 Secretariat.

5 Colour

5.1 When used on illuminated displays, the following colours have the meanings indicated:

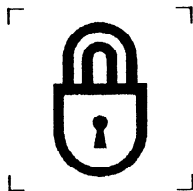
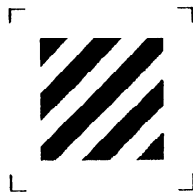

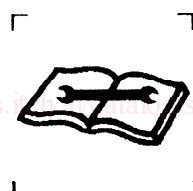
- red: failure or serious malfunction; requires immediate attention;
- yellow or amber: outside normal operating limits;
- green: normal operating condition.

5.2 In addition, certain colours are used for specific functions:



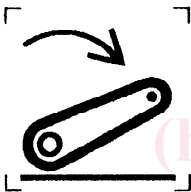

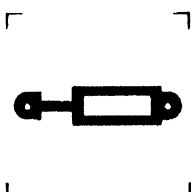
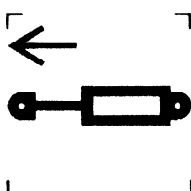
- blue: headlight main-/high-beam display;
- red: hazard warning display;
- green: turn signal display.

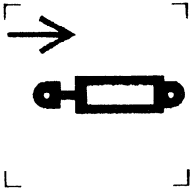
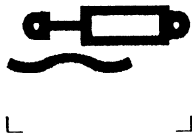



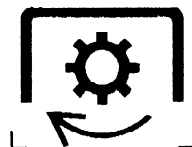
5.3 If colour is used on symbols for the heating and/or cooling systems, the colour red shall be used to indicate hot, and the colour blue shall be used to indicate cold.

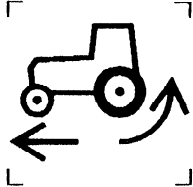
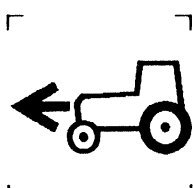
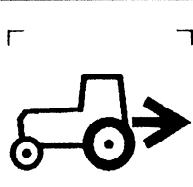
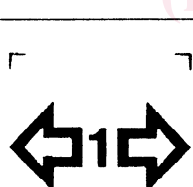
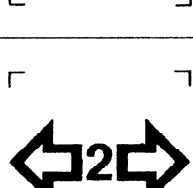
6 General symbols

Symbol number	Symbol form/shape	Symbol description/application	ISO/IEC registration number
6.1		Lock	1656
6.2		Area worked	1657
6.3		Area worked per hour	1658
6.4		Service indicator	1659

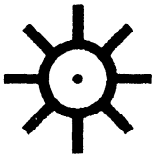




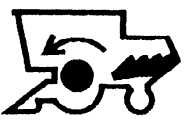
7 Agricultural tractor symbols

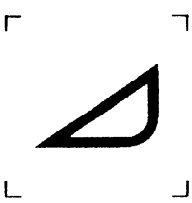
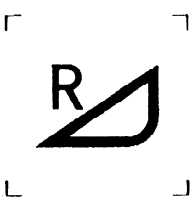
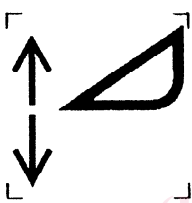

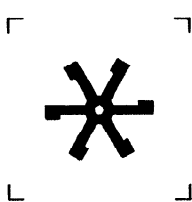
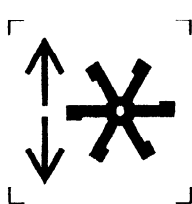
Symbol number	Symbol form/shape	Symbol description/application	ISO/IEC registration number
7.1		Rockshaft — Basic symbol	1566
7.2		Rockshaft — Up	1567
7.3		Rockshaft — Down	1568
7.4		Rockshaft — Float	1660
7.5		Remote cylinder — Basic symbol	1569
7.6		Remote cylinder — Extend	1570

Symbol number	Symbol form/shape	Symbol description/application	ISO/IEC registration number
7.7		Remote cylinder — Retract	1571
7.8		Remote cylinder — Float	1661
7.9		Differential lock [May be used with On (5007) and Off (5008) or On/off (5010), or Engage (0022) and Disengage (0023) symbols.]	1662
7.10		4-Wheel drive [May be turned 180° for normally front-wheel drive machines. May be used with On (5007) and Off (5008) or On/off (5010), or Engage (0022) and Disengage (0023) symbols.]	1663
7.11		PTO (Power Take-Off) [May be used with On (5007) and Off (5008) or On/off (5010), or Engage (0022) and Disengage (0023) symbols.]	1572
7.12		PTO (Power Take-Off) — Rotational speed (To be used with PTO speed selection or display. Numerical values of speed should be indicated in conjunction with the control or display.)	1664

Symbol number	Symbol form/shape	Symbol description/application	ISO/IEC registration number
7.13		Tractor — Wheel slip	1665
7.14		Tractor — Direction of movement forward (side view of machine)	1666
7.15		Tractor — Direction of movement rearward (side view of machine)	1667
7.16		Turn signal — Tractor and first trailer	1419
7.17		Turn signal — Tractor and second trailer	1420

8 Harvesting machinery and equipment symbols

Symbol number	Symbol form/shape	Symbol description/application	ISO/IEC registration number
8.1		Chopper (May be used for any chopper: symbol is not restricted to harvesting machinery.)	1573
8.2		Threshing cylinder [May be used with Continuously variable (1364 or 5004), or Increase (5005) and Decrease (5006) symbols.]	1574
8.3		Straw walker	1575
8.4		Combine — Grain elevator/auger https://standards.iteh.ai/catalog/standards/iso/130fe1fc-5a1f-400d-a359-69911991f7f0/iso-3767-2-1991	1576
8.5		Combine — Tailings elevator/auger	1577
8.6		Combine — Separator drive [May be used with On (5007) and Off (5008) or On/off (5010), or Engage (0022) and Disengage (0023) symbols.]	1578

Symbol number	Symbol form/shape	Symbol description/application	ISO/IEC registration number
8.7		Header or header drive [May be used with On (5007) and Off (5008) or On/off (5010), or Engage (0022) and Disengage (0023) symbols.]	1579
8.8		Header drive — Reverse [May be used with On (5007) and Off (5008) or On/off (5010), or Engage (0022) and Disengage (0023) symbols.]	1580
8.9		Header — Height [May be used with Continuously variable (1364 or 5004), or Increase (5005) and Decrease (5006) symbols.]	1581
8.10		Header Position — Float	1668
8.11		Reel or reel drive [May be used with On (5007) and Off (5008) or On/off (5010), or Engage (0022) and Disengage (0023) symbols.]	1582
8.12		Reel — Height [May be used with Continuously variable (1364 or 5004), or Increase (5005) and Decrease (5006) symbols.]	1583