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STANDARD

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(ISO 3767-1 : 1998, Amd. 1 : 2008)

(JFMMA/JSA)

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

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by Japan Farm Machinery Manufacturers' Association (JFMMA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

Consequently, **JIS B 9126**:1997 has been withdrawn and partially replaced with this Standard.

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Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public or utility model right. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public or utility model right.

JIS B 9126 series consists of the following 4 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 5: Symbols for manual portable forestry machinery

Tractors, machinery for agriculture and forestry, powered lawn and garden equipment—Symbols for operator controls and other displays—Part 1: Common symbols

Introduction

This Japanese Industrial Standard has been prepared based on the third edition of **ISO 3767-1** published in 1998 and Amendment 1:2008 without any modifications of the technical contents. However, the amendment has been compiled in this Standard.

1 Scope

This Standard establishes the common symbols for use on operator controls and other displays on tractors and machinery for agriculture and forestry, and powered lawn and garden equipment (hereafter referred to as “agricultural machines”) as defined in **ISO 3339-0** and **ISO 5395**.

The symbols given apply to controls and displays common to tractors and machinery for agriculture and forestry, and powered lawn and garden equipment.

NOTE 1 The description in **ISO** Standard, “the symbols given apply as well as to other types of self-propelled work machines designed to operate off public roads, such as earth-moving machines, powered industrial trucks and mobile cranes” has been deleted in this Standard which is specific to symbols used for agricultural machines.

NOTE 2 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows:

ISO 3767-1:1998 *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment—Symbols for operator controls and other displays—Part 1: Common symbols* and Amendment 1:2008 (IDT)

The symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS Z 8221-1 *Basic principles for graphical symbols for use on equipment—Part 1: Creation of symbol originals*

NOTE 1 Corresponding International Standard: IEC 80416-1 *Basic principles for graphical symbols for use on equipment—Part 1: Creation of graphical symbols for registration* (IDT)

NOTE 2 Former International Standard **ISO 3461-1**:1988 has been withdrawn and replaced with **IEC 80416-1**.

JIS Z 8221-2 *Basic principles for graphical symbols for use on equipment—Part 2: Form and use of arrows*

NOTE 1 Corresponding International Standard: ISO 80416-2 *Basic principles for graphical symbols for use on equipment—Part 2: Form and use of arrows* (IDT)

NOTE 2 Former International Standard **ISO 4196**:1984 has been withdrawn and replaced with **ISO 80416-2**.

ISO 3339-0 *Tractors and machinery for agriculture and forestry—Classification and terminology—Part 0: Classification system and classification*

ISO 5395 *Power lawn-mowers, lawn tractors, lawn and garden tractors, professional mowers, and lawn and garden tractors with mowing attachments—Definitions, safety requirements and test procedures*

3 Terms and definitions

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

3.1 symbol

visually perceptible figure used to transmit information independently of language

It may be produced by drawing, printing or other means.

4 General

4.1 Symbols shall be as shown in succeeding clauses **6** to **18** of this Standard. However, symbols which are shown in outline form in this Standard, 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 thickness 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 **JIS Z 8221-1**.

4.4 For actual use, all symbols shall be reproduced large enough to be easily discernible by the operator. See **JIS Z 8221-1** for guidelines for proper sizing of symbols. Symbols shall be used in the orientations shown in this Standard 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. For example, symbol 8.4 for engine lubricating oil filter is a composite of symbol 6.1 for engine, symbol 6.5 for oil, and symbol 6.13 for filter.

4.6 If a symbol shows a machine or parts of a machine from a side view, a machine moving from right to left across the symbol grid area shall be assumed. If a symbol shows a machine or parts of a machine from an overhead view, a machine moving from bottom to top across the symbol grid 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 **JIS Z 8221-2**, **JIS Z 8221-1** shall be consulted for the general principles of creating symbols.

4.10 **ISO/IEC** registration numbers are shown for symbols in this Standard. Registration numbers below 5000 refer to **ISO 7000**. Registration numbers above 5000 refer to **IEC 60417**.

4.11 Letters and numerals may be used as symbols, but are not registered by **ISO/TC 145** or published in **ISO 7000**. In 9.8 to 9.17, 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 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 Standard are presented within the outer limits of a 24 mm square grid (32 % of original size on the **ISO** graphics grid). Corner marks delimit the corners of the 75 mm square graphics grid from **JIS Z 8221-1**. Corner marks are not part of the symbol itself, but are provided to ensure consistent presentation of all symbol graphics.

5 Colour

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

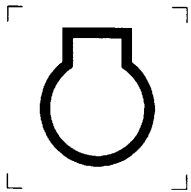
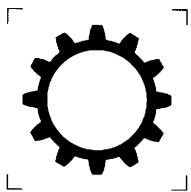
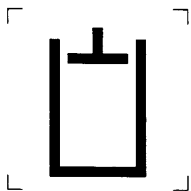
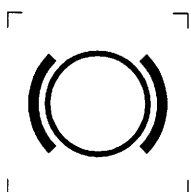
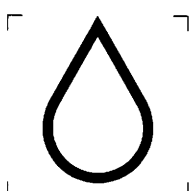
- red: failure or serious malfunction; requires immediate attention;
- yellow or amber: outside normal operating limits;
- green: normal operating condition.

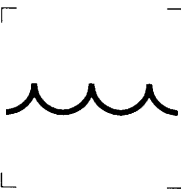
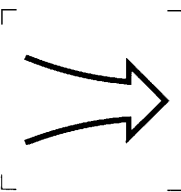
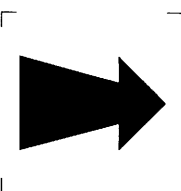
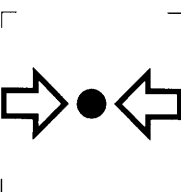
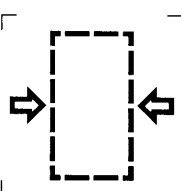
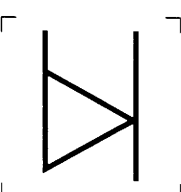
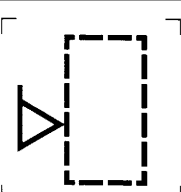
5.2 In addition, certain colours are used for specific functions:

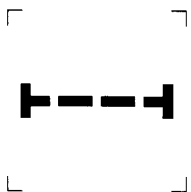
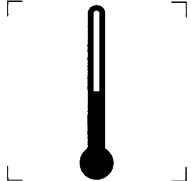
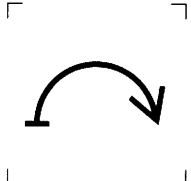
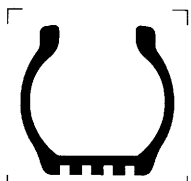
- blue: headlight main-/high-beam display;
- red: hazard warning display;
- green: turn signal display.

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.

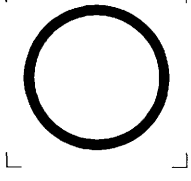
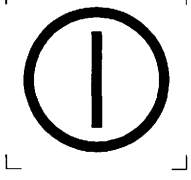
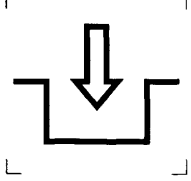
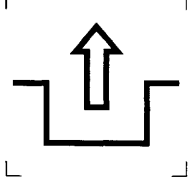
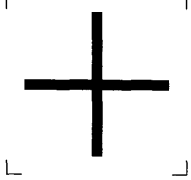
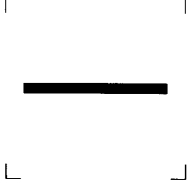
6 Basic symbol shapes

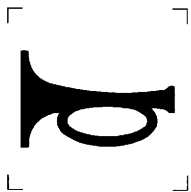
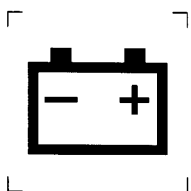
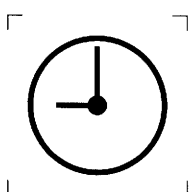
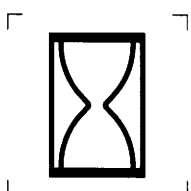
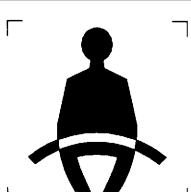
Symbol number	Symbol form/shape	Symbol description/application	ISO/IEC registration number
6.1		Engine	1156
6.2		Transmission	1166
6.3		Hydraulic system	1409
6.4		Brake system	1399
6.5		Oil	1056

Symbol number	Symbol form/shape	Symbol description/application	ISO/IEC registration number
6.6		Coolant (water)	0536
6.7		Intake air To be used as symbol element only in combination with other symbols (e.g., engine). Shall be outline in all applications.	1604
6.8		Exhaust gas To be used as symbol element only in combination with other symbols (e.g., engine). Shall be shaded in all applications.	1605
6.9		Pressure To be used where the medium under pressure is not specified.	1701
6.10		Pressure For the creation of a combined symbol where the medium under pressure is specified, replace the dashed rectangle with a symbol for the medium.	Application examples are not registered
6.11		Level indicator	Application of 0159
6.12		Liquid level For the creation of a combined symbol where the fluid being measured is specified, replace the dashed rectangle by a symbol for the fluid.	Application examples are not registered

Symbol number	Symbol form/shape	Symbol description/application	ISO/IEC registration number
6.13		Filter	1369
6.14		Temperature	0034
6.15		Failure/malfunction To be used as symbol element only in combination with other symbols.	1603
6.16		Start switch/mechanism	1365
6.17		Seat — Side view	1705
6.18		Seat — Overhead view	2170
6.19		Tyre	2176

7 General symbols

Symbol number	Symbol form/shape	Symbol description/application	ISO/IEC registration number
7.1		On/start	5007
7.2		Off/stop	5008
7.3		On and off	5010
7.4		Engage Symbol may be rotated 90° for a clearer visual representation.	0022
7.5		Disengage Symbol may be rotated 90° for a clearer visual representation.	0023
7.6		Plus/increase/positive polarity	5005
7.7		Minus/decrease/negative polarity	5006

Symbol number	Symbol form/shape	Symbol description/application	ISO/IEC registration number
7.8		Horn	0244
7.9		Lighter	0620
7.10		Battery charging condition	0247
7.11		Clock/time switch/timer	5184
7.12		Hourmeter/elapsed operating hours	1366
7.13		Seatbelt — Lap belt only	1702
7.14		Fast	Application examples are not registered