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ISO 6405-1

Third edition
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Earth-moving machinery — Symbols for operator controls and other displays —

Part 1: Common symbols

Engins de terrassement — Symboles pour les commandes de l'opérateur et autres indicateurs —

Partie 1: Symboles communs

Reference number
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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 3, *Machine characteristics, electrical and electronic systems, operation and maintenance*.

This third edition of ISO 6405-1 cancels and replaces the second edition (ISO 6405-1:2004), which has been technically revised with many new symbols added. It also incorporates the Amendment ISO 6405-1:2004/Amd 1:2010.

A list of all parts in the ISO 6405 series can be found on the ISO website.

Earth-moving machinery — Symbols for operator controls and other displays —

Part 1: Common symbols

IMPORTANT — The electronic file of this document contains colours which are considered to be useful for the correct understanding of the document. Users should therefore consider printing this document using a colour printer.

1 Scope

This document standardizes symbols for use on operator controls and other displays applicable to multiple types of earth-moving machinery as defined in ISO 6165.

NOTE 1 ISO 6405-2 covers symbols for specific types of earth-moving machines, equipment, and accessories.

NOTE 2 ISO 7000 and IEC 60417 can be consulted for additional internationally standardized symbols of potential relevance to earth-moving machinery.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6165, *Earth-moving machinery — Basic types — Identification and terms and definitions*

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

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

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

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at www.iso.org/obp

— IEC Electropedia: available at www.electropedia.org

3.1
symbol
graphical symbol
visually perceptible figure used to transmit information independent of language

Note 1 to entry: It may be produced by drawing, printing, or other means. Letters, numerals, and mathematical symbols may be used as symbols or symbol elements. For some specific applications, groups of letters (for example, AUTO, STOP) are used as symbols or symbol elements.

Note 2 to entry: Letters and numerals are not registered by ISO/TC 145/SC 3 or published in ISO 7000 unless they are symbol elements embedded in graphical symbols.

3.2
icon
digital display icon
digitized (pixelated) representation of a graphical symbol (3.1), usually used on a reconfigurable electronic display screen or graphical user interface (GUI)

Note 1 to entry: A single symbol can be represented by multiple icons, each of a different size, pixel count, or colourization.

4 General

4.1 Except as indicated in subsequent clauses, symbols shall be used as shown in this document.

4.2 Selected symbols, which are shown in outline form in this document, may be filled in actual use for enhanced clarity of reproduction and improved visual perception by the operator, except as otherwise specified for individual symbols, and in accordance with IEC 80416-3.

4.3 Limitations inherent in some reproduction and display technologies can require increased line width or other minor modifications of symbols. Such modifications are allowed, provided that the symbol remains conceptually unchanged in its basic graphical elements and is easily discernible by the operator.

4.4 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 can be necessary to modify the symbol as indicated in IEC 80416-3 (for example, to change the line width or to round the corners of the symbol). Such modifications are allowed, provided that the essential perceptible characteristics of the symbol are maintained.

4.5 For actual use, all symbols shall be reproduced large enough to be easily discernible by the operator. Follow IEC 80416-3 for the proper sizing of symbols. Symbols grouped together in a display or on a set of controls should be scaled to the same degree relative to the corner marks of the symbol original as shown in this document in order to maintain the correct visual relationship among the symbols. Symbols shall be used in the orientation shown in this document, unless rotation or mirror imaging is specifically allowed for individual symbols.

4.6 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.

4.7 In some cases, symbols may be used in conjunction, without being combined into a composite symbol, to convey the same meaning as the composite symbol.

4.8 Symbols are generally intended to replace a word or words with a graphical image that has the same meaning for all operators, regardless of their native language. However, the use of a graphical symbol to identify a control or display does not preclude the use of words in conjunction with that control or display.

4.9 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 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 area shall be assumed.

4.10 Symbols on controls and displays shall have a good contrast to their background. A white or light-coloured symbol on a black or dark-coloured background is preferred for most controls. Displays may use either a white or light-coloured symbol on a black or dark-coloured background or a black or dark-

coloured symbol on a white or light-coloured background, depending upon which alternative provides the best visual perception. When a symbol image is reversed (for example, from black-on-white to white-on-black or vice versa) this reversal shall be done for the entire symbol.

4.11 If symbols are cast, moulded, embossed, or stamped into a surface, the symbols shall be visually distinct from that surface without dependence on colour.

4.12 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 control towards the symbols shall effect the function depicted by that symbol.

4.13 Arrows used in symbols shall conform to the requirements of ISO 80416-2. IEC 80416-1 shall be consulted for the general principles for creating symbol originals. IEC 80416-3 should be consulted for guidelines for the application of symbols.

4.14 ISO/IEC registration numbers are shown for symbols which are registered in ISO 7000 or IEC 60417.

NOTE Symbol originals are approved and registered either by ISO/TC 145/SC 3 and published in ISO 7000 or by IEC/SC 3C and published in IEC 60417. In some cases, modified or application symbols, rather than the registered symbol originals, are standardized in this document.

4.15 When letters or numerals are used in a symbol, the font shown shall not be considered definitive. Other fonts may be used so long as the letters and numerals remain legible.

4.16 Symbols in this part of ISO 6405 are shown within marks that delimit the corners of the 75 mm square basic pattern from IEC 80416-1. Corner marks are not part of the symbol, but are provided to ensure consistent presentation of all symbol graphics.

5 Colour

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

— Red denotes a failure, serious malfunction, or operating condition that requires immediate attention;

— Yellow or amber denotes a condition outside normal operating limits;

— Green denotes a normal operating condition.

5.2 In addition, certain colours shall be used for specific applications:

— Blue is used for the high beam; main beam display (see 15.1);

— Red is used for the hazard warning display and for the hazard warning control (see 15.6);

— Green is used for the turn signal display (see 15.10).

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

6 Development of new symbols

6.1 Prior to developing a new symbol, a search should be conducted for previously standardized symbols with the same or similar meaning to what is needed. ISO 7000 and IEC 60417 (both available in database form) are compilations of internationally standardized symbols which can be useful both for

finding appropriate symbols that do not appear in ISO 6405 and for generating concepts that can be used in the development of new symbols.

6.2 New symbols shall be developed in accordance with the principles of Annex A of this document. IEC 80416-1 should be consulted for general principles for the creation of symbols. Arrows shall be in accordance with ISO 80416-2. Different arrow forms have different meanings according to ISO 80416-2. Care should be taken to use the correct arrow form. Following the guidelines given in Annex A of this document makes possible the development of symbols appropriate in graphical form and content for international standardization and ISO 7000 registration.

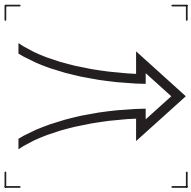
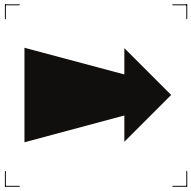
6.3 Symbols proposed for standardization in this document shall include a short explanation of the function or expected use of the symbol.

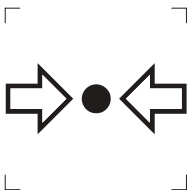
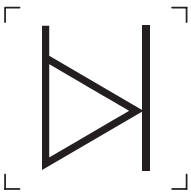
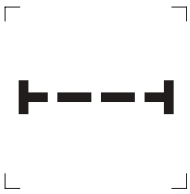
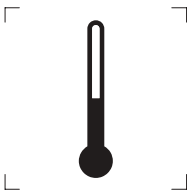
NOTE IEC 80416-1 uses the term "description" for this type of information and provides guidelines for writing descriptions for symbols intended for standardization in ISO 7000 or IEC 60417. The descriptions for symbols standardized in this document can serve as examples.

7 Adaptation of symbols as digital display icons

Symbols can be adapted for use as digital display icons on visual display units, reconfigurable displays, or other electronic displays. Such adaptations should follow the principles of ISO 80416-4. Special care should be taken to ensure that digital display icons preserve the visual impression of the symbol from which the icon is adapted. The same principles regarding use of colour with symbols apply to the use of colour with digital display icons.

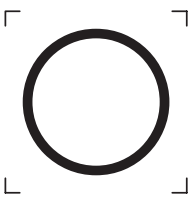
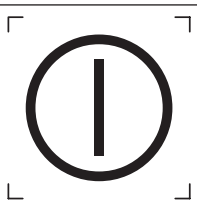
8 Base symbols

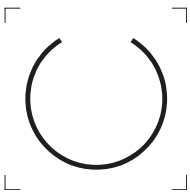
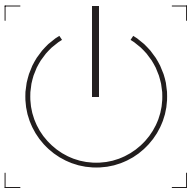
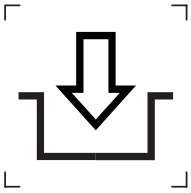
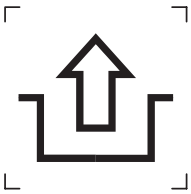
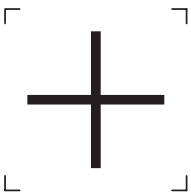
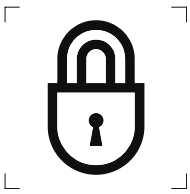
	Graphical symbol	Symbol title and description	ISO/IEC registration number
8.1		**Oil; fluid** To indicate oil or other non-water-base fluid. Use as a symbol element in combination with other symbols to indicate specified types of oil. This symbol may be used when the type of oil or fluid is not specified.	Application of ISO 7000–1056
8.2		**Water; coolant; water-base fluid** To indicate water, coolant, or other water-base fluid. Use as a symbol element in combination with other symbols to indicate specified types of water-base fluid. This symbol may be used when the type of water-base fluid is not specified.	Application of ISO 7000–0536
8.3		**Intake air; air flow through** To indicate intake air. To indicate air flow into or through a tube or pipe. This symbol shall be used outline.	Application of ISO 7000–1604
8.4		**Exhaust gas** To indicate exhaust gas. To indicate air flow out of a tube or pipe. This symbol shall be used filled.	ISO 7000–1605

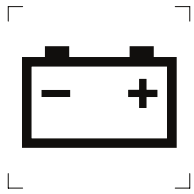
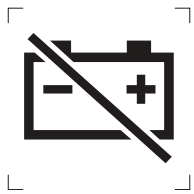
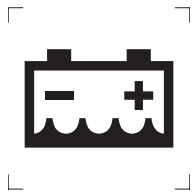
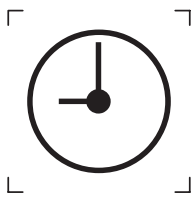
	Graphical symbol	Symbol title and description	ISO/IEC registration number
8.5		**Pressure** To indicate pressure in general. Use as a symbol element in combination with other symbols to indicate the type of material that is under pressure. The filled circle may be deleted and an appropriate symbol inserted between the arrows.	ISO 7000–1701
8.6		**Level indicator** To identify the control that adjusts the amount of level of material in a container. To indicate the level of, for example, a liquid in a container. Use as a symbol element in combination with other symbols to indicate the type of material whose quantity is measured. The line at the right of the symbol may be deleted and an appropriate symbol inserted.	Application of ISO 7000–0159
8.7		**Filter** To indicate a filter for liquid or gas. Use as a symbol element in combination with other symbols to indicate the type of material that is filtered.	ISO 7000–1369
8.8		**Temperature** To indicate temperature or a function associated with temperature.	ISO 7000–0034
8.9		**Malfunction, general; failure** To indicate that a component or function has failed or malfunctioned. Use as a symbol element in combination with other symbols to indicate the component or function that has failed or malfunctioned.	ISO 7000–1603B

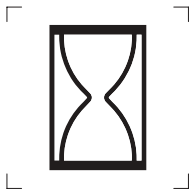
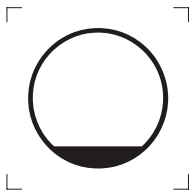
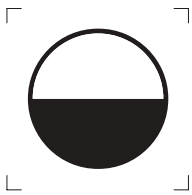
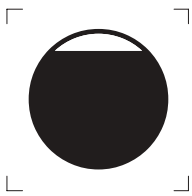
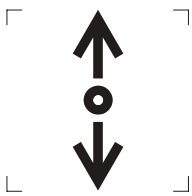
	Graphical symbol	Symbol title and description	ISO/IEC registration number
8.10		**Mass; weight** To indicate mass. To identify a function related to mass. ISO 7000–1321A and ISO 7000–1321B are alternative symbols with the same meaning.	Application of ISO 7000–1321A
8.11			ISO 7000–1321B
8.12		**Air, general** To indicate air in general. To indicate a function related to air in general.	Application of ISO7000–0537

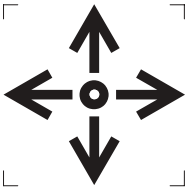
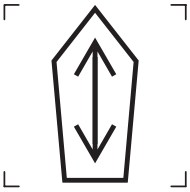
9 General symbols

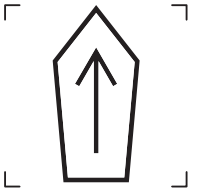
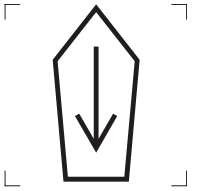
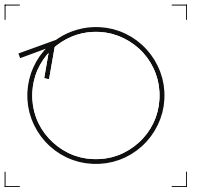
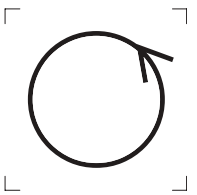
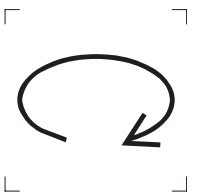
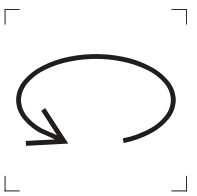
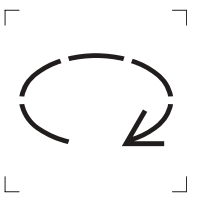
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.1		**On; start** To identify the control that starts a function or operation. To identify the control that enables a function or operation to be engaged or activated. Use independently or in conjunction with other symbols. Do not use as a graphical element with the meaning “on; start” within a combined symbol (see 4.6 and 4.7).	Application of IEC 60417–5007
9.2		**Off; stop** To identify the control that stops a function or operation. To identify the control that disables a function or operation to be engaged or activated. Use independently or in conjunction with other symbols. Do not use as a graphical element with the meaning “on; start” within a combined symbol (see 4.6 and 4.7).	Application of IEC 60417–5008
9.3		**On and off** To identify the control that, depending on its position or last activation, starts or stops a function or operation. Use independently or in conjunction with other symbols. Do not use as a graphical element with the meaning “on and off” within a combined symbol (see 4.6 and 4.7).	Application of IEC 60417–5010

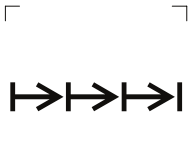
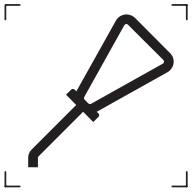
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.4		**Ready** To indicate that the machine or equipment or function is ready for operation.	ISO 7000–1140
9.5		**Stand-by** To identify the control by which part of the equipment is switched on in order to bring the component or function into the stand-by condition.	IEC 60417–5009
9.6		**Engage** To identify the control that effects the engagement of two machine parts or elements, or the activation of a mechanical function. To indicate the engagement function. This symbol may be rotated 90° or 180° for a clearer visual representation.	Application of ISO 7000–0022
9.7		**Disengage** To identify the control that effects the disengagement of two machine parts or elements, or the deactivation of a mechanical function. To indicate the disengagement function. This symbol may be rotated 90° or 180° for a clearer visual representation.	Application of ISO 7000–0023
9.8		**Plus; increase; positive polarity** To identify the positive terminals of equipment which is used with or generates direct current. To indicate that a quantity is increasing or the direction of control movement that increases a quantity.	Application of IEC 60417–5005
9.9		**Minus; decrease; negative polarity** To identify the negative terminals of equipment which is used with or generates direct current. To indicate that a quantity is decreasing or the direction of control movement that decreases a quantity.	Application of IEC 60417–5006
9.10		**Lock** To identify the location of a lock. To identify the control that effects a locking function. To indicate that the component or function is in its locked state.	ISO 7000–1656
9.11		ISO 7000–1656 and IEC 60417–5569 are alternative symbols with the same meaning.	Application of IEC 60417–5569

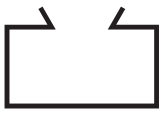
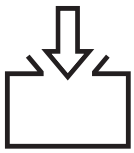
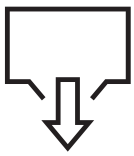
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.12		**Unlock** To identify the control that effects an unlocking function. To indicate that the component or function is in its unlocked state. ISO 7000–3305 and IEC 60417–5570 are alternative symbols with the same meaning.	ISO 7000–3305
9.13			Application of IEC 60417–5570
9.14		**Horn** To identify the control for the horn.	ISO 7000–0244
9.15		**Battery charging condition** To indicate whether the battery is charging. To indicate the operational status of the battery. When displayed on a red background, this symbol indicates that the battery has reached a low level of charge.	ISO 7000–0247
9.16		**Battery disconnect; battery shut-off** To identify the control that disconnects the battery from the electrical system. To indicate that the battery has been disconnected.	ISO 7000–2063
9.17		**Battery fluid level** To indicate the battery fluid level. To identify the battery fluid fill point.	ISO 7000–2455
9.18		**Battery, failure** To indicate that the battery has failed or malfunctioned.	Application of ISO 7000–2456
9.19		**Clock; time switch; timer** To identify clock or timer functions. To identify the control that activates a clock, time switch, or timer. To identify the control that allows setting of time and date on electronic displays.	IEC 60417–5184

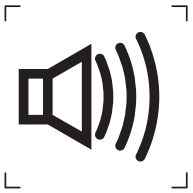
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.20		**Clock, malfunction** To indicate that the clock has malfunctioned.	ISO 7000–3395
9.21		**Hourmeter; elapsed operating hours** To indicate the number of hours that the machine or component has been operating. To indicate the operating interval at which service or maintenance functions should be performed. Use as a symbol element to indicate a quantity per hour.	ISO 7000–1366
9.22			Application of ISO 7000–1366
9.23		**Volume, empty** To indicate that the container is empty. To identify the empty reading or indicator position on the display or container.	ISO 7000–1563
9.24		**Volume, half-full** To indicate that the container is half-full. To identify the half-full reading or indicator position on the display or container.	ISO 7000–1564
9.25		**Volume, full** To indicate that the container is full. To identify the full reading or indicator position on the display or container.	ISO 7000–1565
9.26		**Control lever operating direction, dual-direction** To indicate that the control operates in two directions. To indicate the directions in which the control moves. This symbol may be rotated to indicate the angle of control operation in two directions. Place appropriate symbols at arrowheads to indicate the action effected by movement of the control.	ISO 7000–1436

	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.27		**Control lever operating direction, multiple-direction** To indicate that the control operates in multiple directions, generally forward-rearward and left-right. To indicate the directions in which the control moves. Place appropriate symbols at arrowheads to indicate the action effected by movement of the control.	ISO 7000–1703
9.28		**Joystick control mode** To identify the control that places the machine, equipment, or function in joystick control mode. To indicate that the machine, equipment, or function is in joystick control mode.	ISO 7000–3192
9.29		**Joystick control, lock** To identify the control or control position that deactivates the joystick control and thereby locks out the functionality of the control. To indicate that the joystick control is in the locked condition.	ISO 7000–3306
9.30		**Joystick control, off or not available** To indicate that the joystick control is not functional.	ISO 7000–3307
9.31		**Pull switch, switch position pulled out; pull to activate** To identify a control that is activated by pulling out. To indicate that the pull switch is pulled out (activated).	ISO 7000–1154
9.32		**Pull switch, switch position pushed in; push to deactivate** To identify a control that is deactivated by pushing in. To indicate that the pull switch is pushed in (deactivated).	ISO 7000–1155
9.33		**Forward or rearward movement, general** To identify the control or control that moves the machine in a forward or rearward direction. To indicate that the machine is moving forward or rearward. Use this symbol when identification of the machine type is not required or when an appropriate machine representation is not available.	ISO 7000–3517

	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.34		**Forward movement, general** To identify the control or control that moves the machine in a forward direction. To indicate that the machine is moving forward. Use this symbol when identification of the machine type is not required or when an appropriate machine representation is not available.	ISO 7000–0775
9.35		**Rearward movement, general** To identify the control that moves the machine in a rearward direction. To indicate that the machine is moving rearward. Use this symbol when identification of the machine type is not required. Use this symbol when identification of the machine type is not required or when an appropriate machine representation is not available.	ISO 7000–0776
9.36		**Clockwise rotation** To identify clockwise rotational movement.	ISO 7000–0258
9.37		**Anti-clockwise rotation** To identify anti-clockwise rotational movement.	ISO 7000–0937
9.38		**Direction of continuous rotation, clockwise** To indicate continuous clockwise rotational movement.	ISO 7000–0440
9.39		**Direction of continuous rotation, anti-clockwise** To indicate continuous anti-clockwise rotational movement.	ISO 7000–0941
9.40		**Direction of interrupted rotation, clockwise** To indicate interrupted clockwise rotational movement.	ISO 7000–0942

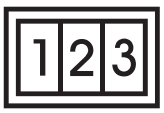
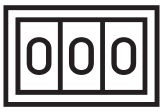
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.41		**Direction of interrupted rotation, anti-clockwise** To indicate interrupted anti-clockwise rotational movement.	ISO 7000–0943
9.42		**Rotary repeated positioning** To identify the control that activates repeated positioning in a rotary direction.	ISO 7000–0436
9.43		**Rectilinear repeated positioning** To identify the control that activates repeated positioning in a rectilinear direction.	ISO 7000–0254
9.44		**Grease lubrication point; lubricate with grease; grease lubrication** To identify the locations on a machine or equipment which should be lubricated with grease. To identify the container for grease. To indicate the need for service with grease. This symbol may be combined with ISO 7000–1366 (see 9.22 and 9.23) to indicate service intervals for components lubricated with grease.	ISO 7000–0787
9.45		**Grease lubrication system, automatic operation mode** To identify the automatic grease lubrication system. To identify the fill point for the automatic grease lubrication system. To indicate the operational status of the automatic grease lubrication system.	ISO 7000–3396
9.46		**Oil lubrication point; lubricate with oil; lubricating oil** To identify the locations on a machine or equipment which should be lubricated with oil. To indicate the need for service with oil. This symbol may be combined with ISO 7000–1366 (see 9.22 and 9.23) to indicate service intervals for components lubricated with oil.	Application of ISO 7000–0391
9.47		**Lift point** To identify the locations on a machine where a lifting device can be attached.	ISO 7000–1368

	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.48		**Tow point; retrieval point** To identify the locations on a machine where a towing or retrieval device can be attached. This symbol may be mirror-imaged to indicate the locations on a machine where a towing or retrieval device can be attached for rearward towing or retrieval.	ISO 7000–2686
9.49		**Jack support point; central support** To identify the locations on a machine where a lifting jack or support device can be used. This symbol shall be used filled.	ISO 7000–0542
9.50		**Tie down point** To indicate the locations on a machine or equipment which are to be used to secure the machine (for example, to a trailer) or to prevent equipment from moving during transport.	ISO 7000–2069
9.51		**Reservoir** To identify a reservoir. The type of reservoir may be indicated by a symbol to represent the material contained in the reservoir.	ISO 7000–0359
9.52		**Filling** To indicate the filling of the container. This symbol does not specify the material with which the container is being filled.	ISO 7000–0028
9.53		**Draining; emptying** To indicate the draining or emptying of the container. This symbol does not specify the material which is being drained or emptied.	ISO 7000–0029
9.54		**Read operator's manual** To indicate that the operator's manual should be consulted. To identify the location where the operator's manual is stored.	ISO 7000–0790
9.55		**Service indicator; read technical manual** To indicate that the technical manual should be consulted. To identify the location where the technical manual is stored. To indicate that the machine or equipment requires service. To identify the control used to select diagnostic options or to display diagnostic codes.	ISO 7000–1659

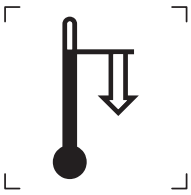
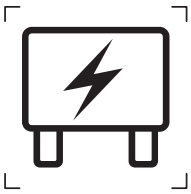
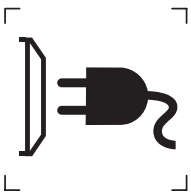
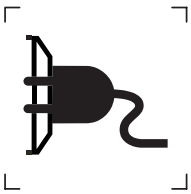
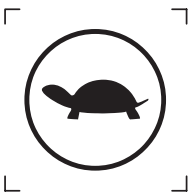
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.56		**Cup holder** To identify the location of the cup holder.	ISO 7000–2583
9.57		**Dipstick** To identify the equipment used to determine the level of fluid by inserting the equipment into a specified location, withdrawing the equipment, and examining the mark left by the residual fluid. To identify the dipstick location. This symbol does not specify the fluid that is measured by the dipstick.	ISO 7000–1318
9.58		**Moving machine alarm; rearward moving machine alarm** To identify the control that sounds an alarm to alert persons when the machine is moving rearward. To indicate the operational status of the rearward moving machine alarm.	ISO 7000–2104
9.59		**Moving machine alarm, cancel; rearward moving machine alarm, cancel** To identify the control that cancels or switches off the rearward moving machine alarm.	ISO 7000–2240
9.60		**Radar sensor** To identify the control for the radar sensor. To indicate that data (for example, to determine machine ground speed) have been obtained using radar.	Application of ISO 7000–2241
9.61		**Satellite reception mode, general** To identify the control that enables the equipment to receive satellite broadcasting transmissions. To indicate that the equipment is in the satellite reception mode.	IEC 60417–5464
9.62		**Global positioning system (GPS); global navigation satellite system (GNSS)** To indicate that data (for example, to determine machine ground speed) have been obtained using one of the global satellite navigation systems. To identify the control for the satellite navigation sensor. To indicate the operational status of the satellite navigation sensor. The abbreviations GNSS or GPS may be used in addition to or as alternatives to this symbol.	ISO 7000-3599

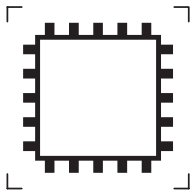
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.63		**Wireless communication** To identify the control that enables or activates wireless communications. To indicate the operational status of the wireless communications function.	ISO 7000–3600
9.64		**Latitude and longitude** To identify the control that sets the current or default latitude and longitude. To indicate latitude and longitude.	ISO 7000–3193
9.65		**Aerial; antenna** To identify the aerial (antenna). This symbol should be used unless it is essential to specify the type of aerial (antenna).	IEC 60417–5039
9.66		**Urgent alert indicator** To indicate a condition that requires immediate attention by the operator. Use as an “urgent alert” indicator to call attention to another (already existing) symbol.	ISO 7000–2301
9.67		**Information alert** To indicate that one or more functions or systems on the machine or equipment are operating outside normal parameters in such a way as to require that the operator be alerted, but not necessarily to require active attention or monitoring of the function or system.	ISO 7000–2760
9.68		When displayed in colour, this symbol shall be displayed in blue, preferably with blue outer border, white inner border, blue background, and white letter (see 9.68). This symbol is registered in ISO 7000 with the title “product information; information point” and a different description. May be used in combination with ISO 7000–2813 (see 9.69 and 9.70) and ISO 7000–3308 (see 9.71 and 9.72).	Application of ISO 7000–2760

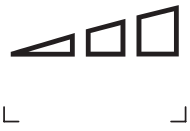
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.69		**Operator alert** To indicate that one or more functions or systems on the machine or equipment are operating outside normal parameters in such a way as to require attention or further monitoring of the function or system, but not necessarily to require stopping the machine or equipment. When displayed in colour, this symbol shall be displayed in yellow, preferably with black outline diamond and black exclamation mark on a yellow background. The yellow background may be extended beyond the limit of the black outline diamond (see 9.70). Do not use this symbol for alerting to personal safety hazards. May be used in combination with ISO 7000–2760 (see 9.67 and 9.68) and ISO 7000–3308 (see 9.71 and 9.72).	ISO 7000–2813
9.70			Application of ISO 7000–2813
9.71		**Stop operation** To instruct the operator to stop the machine or equipment as soon as possible and to switch off the engine or perform a requested action before any further operation is attempted. To indicate that one or more functions or systems on the machine or equipment are operating outside normal parameters in such a way as to require stopping the machine or equipment. When displayed in colour, this symbol shall be displayed in red with red outer border, white inner border, red background, and white letters (see 9.72). May be used in combination with ISO 7000–2760 (see 9.67 and 9.68) and ISO 7000–2813 (see 9.69 and 9.70).	ISO 7000–3308
9.72			Application of ISO 7000–3308
9.73		**Manual control; manual operation; manual start** To identify the control that activates manual control. To indicate that the function is in manual control mode. Use as a symbol element in a combined symbol or in conjunction with a function symbol to indicate manual operating mode. ISO 7000–0096 and ISO 7000–2684 are alternative symbols with the same meaning. ISO 7000–2684 may be rotated 90° clockwise. Rotated symbol may be mirror-imaged. Symbol ISO 7000–2684 is registered with the title “manual activation control”.	ISO 7000–0096
9.74			ISO 7000–2684

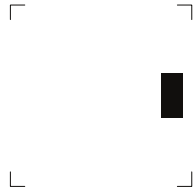
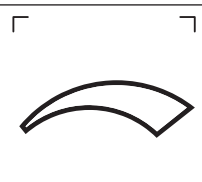
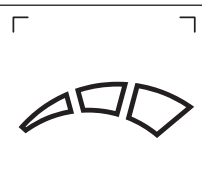
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.75		**Automatic operation; automatic start** To identify the control that selects the automatic mode for a function. To identify the control that activates automatic control. To indicate that the function is in automatic control mode. Use as a symbol element in a combined symbol or in conjunction with a function symbol to indicate automatic operating mode.	Groups of letters used as symbols are not registered.
9.76		**Counter** To indicate a counting function. To indicate the count of a quantity produced in the current job or time interval since the last reset.	Application of ISO 7000–0695
9.77		**Counter reset** To identify the control that sets the count in the counter to zero. To identify the control that sets the value of a measured or displayed quantity to zero.	ISO 7000–2750
9.78		**Roadway travel mode** To identify the control that brings the machine to a condition where it can travel on public roadways. To indicate that the machine is set up for travel on public roadways.	ISO 7000–2310
9.79		**Roadway travel mode, cancel** To identify the control that takes the machine to a condition where it should not travel on public roadways. To indicate that the machine is not set up for travel on public roadways.	Negation of ISO 7000–2310
9.80		**Fast operation** To indicate the fast setting of an operating range. To identify the control for fast operation. To identify the control direction of movement that increases speed of operation. This symbol shall be used filled.	ISO 7000–2810
9.81		**Slow operation** To indicate the slow setting of an operating range. To identify the control for slow operation. To identify the control direction of movement that decreases speed of operation. This symbol shall be used filled.	ISO 7000–2811

	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.82		**Very slow operation; creeper gear** To indicate the very slow setting of an operating range. To identify the control direction of movement that decreases speed of operation to its slowest setting. To identify the creeper gear of the transmission. To indicate that the transmission is operating in its creeper gear. This symbol shall be used filled.	ISO 7000–2812
9.83		**Temperature, high** To identify the high temperature position of a control. To indicate that the temperature is at a high level. Colour may be red to signify warm or hot temperatures.	ISO 7000–3397
9.84		**Temperature, low** To identify the low temperature position of a control. To indicate that the temperature is at a low level. Colour may be blue to signify cool or cold temperatures.	ISO 7000–3398
9.85		**Temperature limit** To identify the control that sets the maximum and minimum temperature limits. To indicate the maximum and minimum temperature limits. The temperature values may be shown adjacent to the symbol, preferably with the minimum temperature on the left side and the maximum temperature on the right side.	ISO 7000–0632
9.86		**Upper temperature limit; maximum temperature** To identify the control that sets the maximum temperature limit. To indicate the maximum temperature limit. The temperature value may be shown adjacent to the symbol, preferably on the right side.	ISO 7000–0533
9.87		**Lower temperature limit; minimum temperature** To identify the control that sets the minimum temperature limit. To indicate the minimum temperature limit. The temperature value may be shown adjacent to the symbol, preferably on the left side.	ISO 7000–0534
9.88		**Temperature, increasing** To indicate an increase in temperature. To identify the control that causes the temperature to increase.	ISO 7000–0035

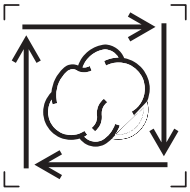
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.89		**Temperature, decreasing** To indicate a decrease in temperature. To identify the control that causes the temperature to decrease.	ISO 7000–0036
9.90		**Temperature control** To identify the control that adjusts or regulates the temperature.	ISO 7000–0175
9.91		**Fuse box access** To identify the fuse box. To identify the location of the fuse box.	ISO 7000–2567
9.92		**External electrical connection, enable** To identify the location for connecting the electrical power for an external electrical component. To identify the control that enables the external electrical connection. To indicate that the external electrical connection is enabled.	ISO 7000–3601
9.93		**External electrical connection, connected** To indicate that the external electrical component is connected.	ISO 7000–3602
9.94		**Limited performance mode; limp home mode** To indicate that the machine is in an operating condition that allows it to be driven but not to do work. To indicate that the machine has taken action to reduce electrical power consumption. Convenience functions with high energy demand (for example, air conditioning) are likely to have their performance degraded first. Machine performance functions may also be altered to conserve electrical energy.	Application of ISO 7000–2639

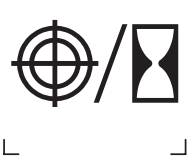
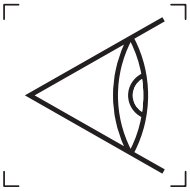
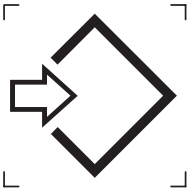
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.95		**Electronic control unit (ECU), general** To identify the computer or microchip that collects data on the performance of machine systems, controls their operations, or adjusts operating conditions in response to inputs. This symbol does not specify the machine components or functions. For specific machine systems, components, or functions, add a symbol element to identify the system, component, or function. For example, see ISO 7000–3417 in 10.70 and ISO 7000–3442 in 11.26.	ISO 7000–3603
9.96		**Smart key** To indicate that a smart key is required to start or operate the machine or equipment. Use an orange indicator to communicate that a smart key is not detected. The indicator is illuminated orange when an attempt is made to start the machine or equipment without a smart key being detected.	Application of ISO 7000–2849
9.97		**Fire extinguisher** To identify the fire extinguisher or its location. To identify the control for the fire extinguisher. To indicate the operational status of the fire extinguisher.	ISO 7000–3309
9.98		**Variability, linear adjustment** To indicate continuous variability of a quantity. To identify the control by means of which a quantity is continuously increased or decreased. The controlled quantity increases with the size of the graphical element. Use when the variable quantity is adjusted by linear movement of the control. This symbol on a control button means a continuous increase in quantity. Its mirror image means a continuous decrease in quantity.	Application of IEC 60417–5004

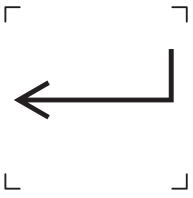
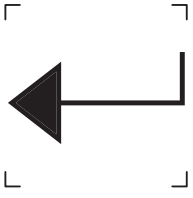
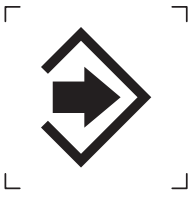
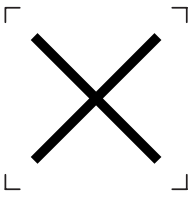
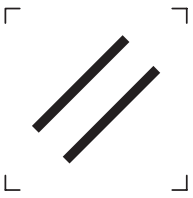
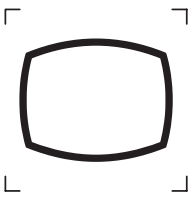
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.99		**Variability in steps, linear adjustment** To indicate variability of a quantity in discrete steps. To identify the control by means of which a quantity is increased or decreased in discrete steps. The controlled quantity increases with the size of the graphical element. Use when the variable quantity is adjusted by linear movement of the control. This symbol on a control button means a stepwise increase in quantity. Its mirror image means a stepwise decrease in quantity. Use in conjunction with IEC 60417–5005 for increase (see 9.8) and IEC 60417–5006 for decrease (see 9.9).	IEC 60417–5181
9.100		**Variability in steps, linear adjustment, lowest setting** To indicate the lowest setting for variability of a quantity in discrete steps. To identify the control by means of which a quantity is set at the lowest of several discrete steps. The controlled quantity increases with the size of the graphical element. Use when the variable quantity is adjusted by linear movement of the control.	Application of IEC 60417–5181
9.101		**Variability in steps, linear adjustment, middle setting** To indicate the medium setting for variability of a quantity in discrete steps. To identify the control by means of which a quantity is set at the middle of several discrete steps. The controlled quantity increases with the size of the graphical element. Use when the variable quantity is adjusted by linear movement of the control.	Application of IEC 60417–5181
9.102		**Variability in steps, linear adjustment, highest setting** To indicate the highest setting for variability of a quantity in discrete steps. To identify the control by means of which a quantity is set at the highest of several discrete steps. The controlled quantity increases with the size of the graphical element. Use when the variable quantity is adjusted by linear movement of the control.	Application of IEC 60417–5181

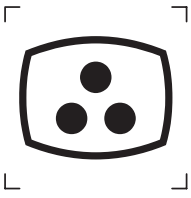
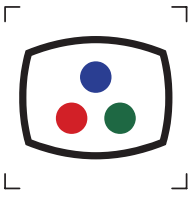
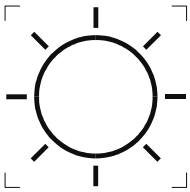
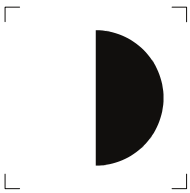
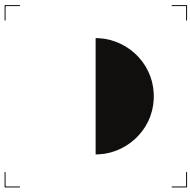
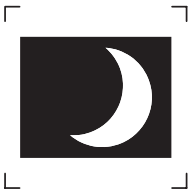
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.103		**Continuous variability, linear adjustment, with maximum step** To indicate continuous variability of a quantity with an additional maximum step. To identify the control by means of which a quantity is increased or decreased. The maximum value can be temporarily switched on by an additional operation. The controlled quantity increases with the size of the graphical element; the maximum step is filled. Use when the variable quantity is adjusted by linear movement of the control.	IEC 60417–5183
9.104		**Variability, rotational adjustment** To indicate continuous variability of a quantity. To identify the control by means of which a quantity is continuously increased or decreased. The controlled quantity increases with the size of the graphical element. Use when the variable quantity is adjusted by rotary movement of the control.	ISO 7000–1364
9.105		**Variability in steps, rotational adjustment** To indicate variability of a quantity in discrete steps. To identify the control by means of which a quantity is increased or decreased in discrete steps. The controlled quantity increases with the size of the graphical element. Use when the variable quantity is adjusted by rotary movement of the control. Use in conjunction with IEC 60417–5005 for increase (see 9.8) and IEC 60417–5006 for decrease (see 9.9). Radius of this symbol can be adjusted according to the radius of the control.	ISO 7000–2164

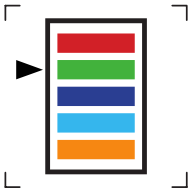
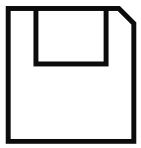
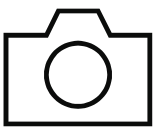
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.106		**Variability in steps, rotational adjustment, lowest setting** To indicate the lowest setting for variability of a quantity in discrete steps. To identify the control by means of which a quantity is set at the lowest of several discrete steps. The controlled quantity increases with the size of the graphical element. Use when the variable quantity is adjusted by rotary movement of the control. Radius of this symbol can be adjusted according to the radius of the control.	Application of ISO 7000–2164
9.107		**Variability in steps, rotational adjustment, medium setting** To indicate the medium setting for variability of a quantity in discrete steps. To identify the control by means of which a quantity is set at the middle of several discrete steps. The controlled quantity increases with the size of the graphical element. Use when the variable quantity is adjusted by rotary movement of the control. Radius of this symbol can be adjusted according to the radius of the control.	Application of ISO 7000–2164
9.108		**Variability in steps, rotational adjustment, highest setting** To indicate the highest setting for variability of a quantity in discrete steps. To identify the control by means of which a quantity is set at the highest of several discrete steps. The controlled quantity increases with the size of the graphical element. Use when the variable quantity is adjusted by rotary movement of the control. Radius of this symbol can be adjusted according to the radius of the control.	Application of ISO 7000–2164

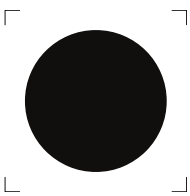
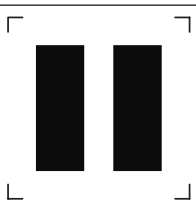
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.109		**Continuous variability, rotational adjustment, with maximum step** To indicate continuous variability of a quantity with an additional maximum step. To identify the control by means of which a quantity is increased or decreased. The maximum value can be temporarily switched on by an additional operation. The controlled quantity increases with the size of the graphical element; the maximum step is filled. Use when the variable quantity is adjusted by rotary movement of the control. Radius of this symbol can be adjusted according to the radius of the control.	IEC 60417–6020
9.110		**Manual cleaning** To indicate that manual cleaning is required. To instruct that a part or component should be cleaned manually.	ISO 7000–0423
9.111		**Automatic cleaning** To identify the control that activates the automatic cleaning system or automatic cleaning cycle. To indicate that the automatic cleaning cycle is underway. To indicate the operational status of the automatic cleaning system.	ISO 7000–0424
9.112		**Target; target rate** To identify the control that sets the target rate. To indicate the intended or specified quantity. This symbol does not specify the material to which the target rate applies. This symbol may be simplified at small size reproduction by removing the inner circle.	ISO 7000–3310
9.113		**Target rate per area** To identify the control that sets the target rate per unit of area. To indicate the target rate (quantity) per unit of area. This symbol does not specify the material to which the target rate applies. This symbol may be simplified at small size reproduction by removing the inner circle.	ISO 7000–3311

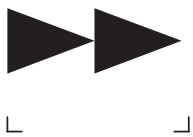
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.114		**Target rate per hour** To identify the control that sets the target rate per hour. To indicate the target rate (quantity) per hour. This symbol does not specify the material to which the target rate applies. This symbol may be simplified at small size reproduction by removing the inner circle.	ISO 7000–3312
9.115		**Examine; check** To indicate an examination. To instruct that a part, component, or process should be examined or checked.	ISO 7000–0421
9.116		**Check system; update system** To indicate that the system needs to be checked or updated.	ISO 7000–3518
9.117		**Acknowledgement; acceptance** To indicate that the function is complete or ready to proceed to the next step. To indicate acknowledgement or acceptance of the message or information.	Application of ISO 7000–0422
9.118		**Assistance; query** To identify the control that activates an assistance (help) screen or display window.	Application of ISO 7000–0435
9.119		**Enter data** To identify the control that sends data or a message to the current application. To identify the “enter data” control on electronic performance monitors. Arrow shall be used outline. ISO 7000–0651A (see 9.120) and ISO 7000–0651B (see 9.121) are alternatives to ISO 7000–1025.	Application of ISO 7000–1025

	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.120		**Enter** To identify the control that enters data and moves the cursor to a new line. ISO 7000–0651A and ISO 7000–0651B are alternative symbols with the same meaning. ISO 7000–0651A and ISO 7000–0651B are alternatives to ISO 7000–1025 (see 9.119).	ISO 7000–0651A
9.121			ISO 7000–0651B
9.122		**Save entered data** To identify the control that saves data that was previously entered into the application. Arrow shall be used filled.	ISO 7000–2167
9.123		**Cancel; negation, general** To identify the control that cancels the current operation. To indicate that the identified function is switched off or not available. This symbol is one of the two methods to negate the meaning of a symbol according to IEC 80416–1. The single diagonal bar is the other method to negate the meaning of a symbol. (For example, see ISO 7000–2240 in 9.59).	Application of IEC 60417–6287
9.124		**Reset** To identify the control that returns the machine mode to a previously determined operating condition or resets the content of an electronic file.	Application of ISO 7000–1027
9.125		**Monitor; display screen** To identify the control that selects video mode. To identify a display screen. To indicate the operational status of the display or video monitor. A series of display screens may be numbered or otherwise identified for subsequent reference. Use as a symbol element in combination with other symbols to indicate video functions.	Application of IEC 60417–5049

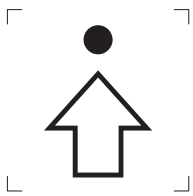
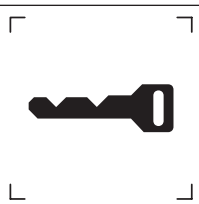
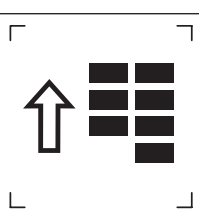
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.126		**Colour monitor; colour display screen** To identify the control that selects colour video mode. To identify a colour display screen. To indicate the operational status of the colour display or colour video monitor.	Application of IEC 60417–5050
9.127		If this symbol is reproduced in colour, the colours of the filled circles shall be red (lower left), blue (top), and green (lower right). Use this symbol only when it is necessary to differentiate between monochrome and colour monitors or displays; otherwise, use IEC 60417-5049 (see 9.125).	Application of IEC 60417–5050
9.128		**Brightness; daylight visibility conditions; day mode** To identify the control that adjusts the brightness on a display screen. To identify the control that selects the brightness of the display screen appropriate to daylight visibility conditions. To indicate that the display screen brightness is adjusted to daylight visibility conditions.	IEC 60417–5056
9.129		**Contrast** To identify the control that adjusts the contrast between light and dark images on the display screen.	IEC 60417–5057
9.130		**Brightness and contrast** To identify the control that adjusts both brightness and contrast on the display screen.	IEC 60417–5435
9.131		**Night visibility conditions; night mode** To identify the control that selects the brightness of the display screen appropriate to night visibility conditions. To indicate that the display screen brightness is adjusted to night visibility conditions.	ISO 7000–3313
9.132		**Cancel display; dim monitor** To identify the control that cancels (deletes) the electronic image displayed. To identify the control that dims the monitor.	Application of IEC 60417–5477

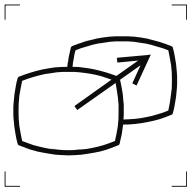
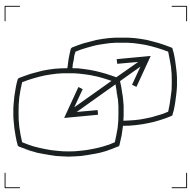
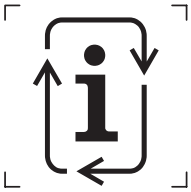
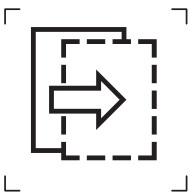
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.133		**Highlight colour** To identify the control that selects the colour used to emphasize (highlight) portions of the display. To indicate the highlight colour. This symbol should be used in colour where practicable (see 9.134).	ISO 7000–3314
9.134			Application of ISO 7000–3314
9.135		**Computer network** To identify the computer network. To indicate that the device is connected to the computer network. To indicate the connecting terminals of the computer network.	IEC 60417–5988
9.136		**Memory disk; save function** To identify the cartridge type memory disk. To identify the control that saves data to the memory disk, compact disk (CD), digital video disk (DVD), or computer hard drive. Too indicate the operational status of the memory disk. To indicate that the memory disk has been inserted.	IEC 60417–5884
9.137		**Computer Mouse** To indicate that input is required via the computer mouse. To indicate the operational status of the computer mouse.	IEC 60417–5990
9.138		**Keyboard** To indicate that data input is required via the computer keyboard. To indicate the operational status of the computer keyboard.	IEC 60417–5991
9.139		**Still camera; screen shot** To identify the control for the electronic or photographic still camera. To identify the control for a screenshot, which captures the electronic image that is currently displayed on the screen.	IEC 60417–5885

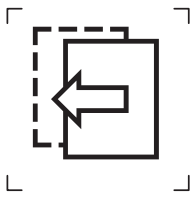
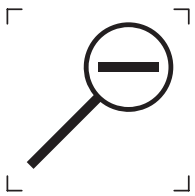
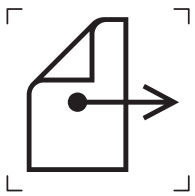
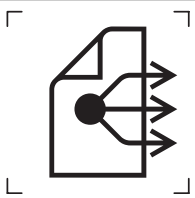
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.140		**Music; radio** To identify the control for music-related functions on audio equipment. To identify the control for the radio or audio equipment.	IEC 60417–5085
9.141		**Record mode** To identify the control that activates the record function. To indicate that the function is recording. This symbol shall be used filled.	IEC 60417–5547
9.142		**Pause mode** To identify the control that pauses the record or play function. To indicate that the recording or playing of the function is paused.	Application of IEC 60417–5111B
9.143		**Stop** To identify the control that stops the record or play function. To indicate that the recording or playing of the function is stopped. The primary application of this symbol is audio tapes, video tapes, compact disks (CD), digital video disks (DVD), memory disks, and computer programs. IEC 60417–5110B is registered as an outline square. A filled square is registered as IEC 60417–5327 with the title “large focal spot”. However, the filled square is commonly used on audio and video equipment with the meaning “stop”.	Application of IEC 60417–5110B

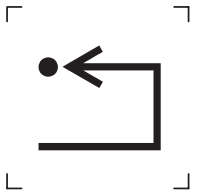
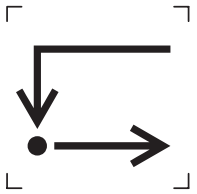
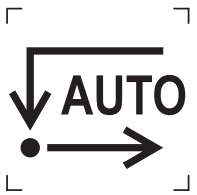
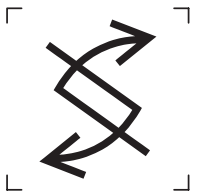
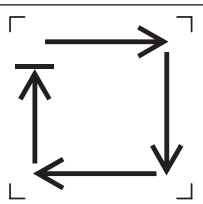
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.144		**Eject, general** To identify the control that ejects audio tapes, video tapes, compact disks (CD), digital video disks (DVD), or memory disks. Use this symbol when the type of media being ejected is either unspecified or obvious in context.	Application of IEC 60417–5459
9.145		**Normal play; normal run** To identify the control that plays the audio or visual program at normal speed. To indicate that the program is in normal play mode. For reverse play, use mirror image of IEC 60417–5107B.	IEC 60417–5107B
9.146		**Reverse play; reverse run** To identify the control that plays the audio or visual program in reverse normal speed. To indicate that the program is in reverse play mode.	Mirror image of IEC 60417–5107B
9.147		**Fast forward mode** To identify the control that advances the program at fast normal speed. To indicate that the program is in fast forward mode. If the program is in play mode (see IEC 60417–5107B in 9.145), the program advances at faster-than-normal speed but slower than maximum speed. If the program is in stop mode (see IEC 60417–5110B in 9.143), the program advances at maximum speed. For fast reverse mode, use mirror image of IEC 60417–5108B).	IEC 60417–5108B

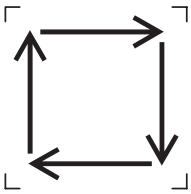
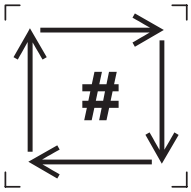
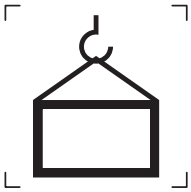
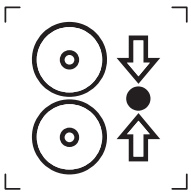
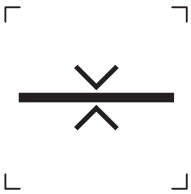
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.148		**Fast reverse mode** To identify the control that reverses the program at fast speed. To indicate that the program is in fast reverse mode. If the program is in play mode (see IEC 60417–5107B in 9.145), the program reverses at faster than normal speed but slower than maximum speed. If the program is in stop mode (see IEC 60417–5110B in 9.143), the program reverses at maximum speed.	Mirror image of IEC 60417–5108B
9.149		**Next; play next part** To identify the control that advances to the next part of the program. If the program is in play mode (see IEC 60417–5107B in 9.145), the program plays the next part. If the program is in stop mode (see IEC 60417–5110B in 9.143), the program advances to the next part, then stops. For previous, play previous part, use mirror image of IEC 60417–5861.	IEC 60417–5861
9.150		**Previous; play previous part** To identify the control that moves to the previous part of the program. From the beginning of a part, the program moves to the beginning of the previous part. From within a part, the program moves to the beginning of the current part. If the program is in play mode (see IEC 60417–5107B in 9.145) at the beginning of a part, the program plays the previous part from its beginning. If the program is in stop mode within a part, the program moves to the beginning of the current part, then plays. If the program is in stop mode (see IEC 60417–5110B in 9.143) at the beginning of a part, the program moves to the beginning of the previous part, then stops. If the program is in stop mode within a part, the program moves to the beginning of the current part, then stops.	Mirror image of IEC 60417–5861

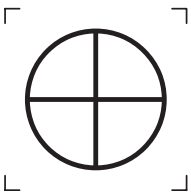
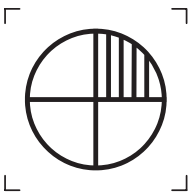
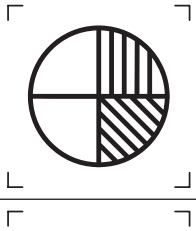
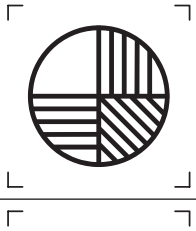
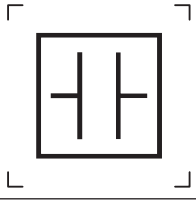
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.151		**Telephone, general** To identify the control that activates the telephone function. To identify the location of the telephone. To indicate the operational status of the telephone function.	Application of IEC 60417–5090
9.152		**Speak** To identify the control for the speak function on the telephone, speech recognition system, or similar device.	Application of IEC 60417–5210
9.153		**Sound muting** To identify the control for suppressing (muting) the sound. To indicate that the sound is muted.	Application of IEC 60417–5436
9.154		**Setup, general; settings, general** To identify the control that provides access to set control or operating parameters for a specified function. The filled circle may be deleted and replaced by an appropriate symbol for the relevant function.	IEC 60417–5849
9.155		**Advanced settings, general** To identify the control that provides access to advanced or next level settings and setup functions. The filled circle may be deleted and replaced by an appropriate symbol for the relevant function.	ISO 7000–3399
9.156		**Activation settings** To indicate that an activation code is needed to download a software program or to use a software feature. To identify the control that allows the user to enter a license number or activation code for an advanced software feature.	ISO 7000–0716B
9.157		**Navigate menu options** To identify the control that moves through a menu of available options (selectable items). A second (down) arrow can be added to indicate bidirectional navigation.	ISO 7000–2814

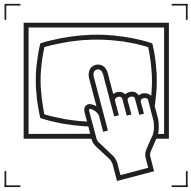
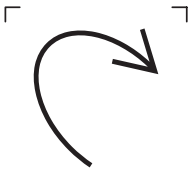
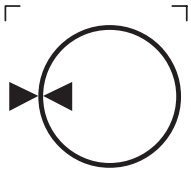
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.158		**Home position; home phone** To identify the control that takes the display to the "home" page of the menus or to a known (user-defined) location in the display hierarchy. To identify the entry for the home phone number in the listing of telephone numbers. IEC 60417–5957 (indoor use only) is registered with a different image of a house, a different title, and a different description.	ISO 7000–3315
9.159		**Transfer image; switch display screens; go to next virtual terminal (VT)** To identify the control that transfers the displayed image to a second screen. To identify the control that switches from one display screen or virtual terminal to another.	IEC 60417–5892
9.160		**Image interchange** To identify the control that interchanges the displayed images between two screens. To indicate that an interchange of displayed images is taking place.	IEC 60417–5794
9.161		**Display mode, scroll through available displays** To identify the control that selects the display mode by rotating through the available displays.	ISO 7000–3519
9.162		**Next page** To identify the control that displays the next page in sequence. Use ISO 7000–2034B only for navigation on a graphical user interface. Do not use ISO 7000–2034B unless its contextual meaning is unambiguous.	ISO 7000–2034A
9.163			ISO 7000–2034B

	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.164		**Previous page** To identify the control that displays the previous page in sequence. Use ISO 7000–2033B only for navigation on a graphical user interface. Do not use ISO 7000–2033B unless its contextual meaning is unambiguous.	ISO 7000–2033A
9.165			ISO 7000–2033B
9.166		**Zoom in** To identify the control that magnifies an image so that a smaller area is seen in greater detail.	Application of IEC 60417–5792
9.167		**Zoom out** To identify the control that reduces an image so that a larger area is seen in lesser detail.	Application of IEC 60417–5792
9.168		**Transmit page/document** To identify the control that transmits the page, document, or data. To indicate that the page, document, or data are being transmitted or have been transmitted.	ISO 7000–1965
9.169		**Receive page/document** To indicate that the page, document, or data are being received or have been received.	ISO 7000–1966
9.170		**Simultaneous transmission** To identify the control that enables simultaneous transmission of pages, documents, or data. To identify that simultaneous transmission is occurring or enabled. Symbol can be used in conjunction with ISO 7000–1965 (see 9.168) and ISO 7000–1966 (see 9.169).	ISO 7000–2658
9.171		**Electrical power, accessories; electrical system** To identify the control (such as a key switch position) that allows electrical power to accessory functions (such as the radio) without operation of the engine. To indicate that electrical power is available for operating accessory functions. To indicate the electrical system in general.	ISO 7000–2302

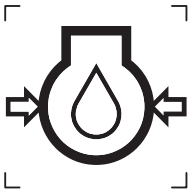
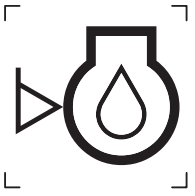
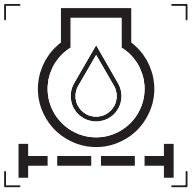
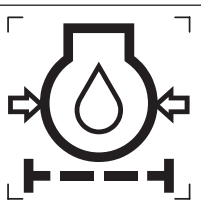
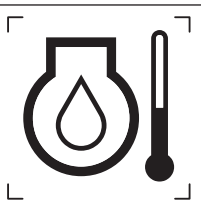
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.172		**Electrical power, malfunction; electrical system, malfunction** To indicate that the electrical system has a malfunction.	ISO 7000–3400
9.173		**Return to initial state** To identify the control which returns a device to its original or initial state. The filled circle may be deleted and an appropriate symbol for the function inserted.	Application of IEC 60417–5495
9.174		**Resume operation using previous operating parameters** To identify the control that returns the function to its previously specified operating parameters and resumes operation of the function.	ISO 7000–3316
9.175		**Resume operation using previous operating parameters, automatic** To identify the control that automatically returns the function to its previously specified operating parameters and resumes operation of the function. To indicate that the resume operation function is in automatic mode.	ISO 7000–3401
9.176		**Interchange** To identify the control that interchanges or allows the interchange of functions or equipment. To indicate that an interchange of functions or equipment is taking place.	Application of ISO 7000–0273
9.177		**Language selection; language setup** To identify the control that selects the language to be displayed. To identify the control that displays the languages that are available for the display.	Groups of letters used as symbols are not registered.
9.178		**One cycle** To identify the control that activates one cycle. To indicate activation of one cycle.	Application of ISO 7000–0426

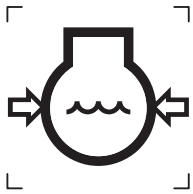
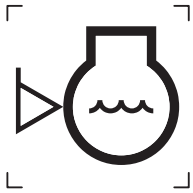
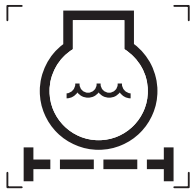
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.179		**Automatic cycle mode** To identify the control that activates the automatic cycle mode of a function. To indicate that the function is in the automatic cycle mode. The function is not specified by this symbol. An appropriate symbol can be inserted to indicate the function.	Application of ISO 7000–0026
9.180		**Number of automatic cycles** To identify the control that sets the number of automatic cycles to be performed. To indicate the number of automatic cycles selected or remaining. The function is not specified by this symbol. The "#" can be replaced by the appropriate numerical value.	ISO 7000–3402
9.181		**Mass lifted** To indicate the mass of an object that may be lifted or is being lifted.	ISO 7000–0430
9.182		**Pressure rollers** To identify the control for pressure rollers. To indicate roller contact pressure.	ISO 7000–0551
9.183		**Material thickness** To identify the control that sets or adjusts the thickness of material being processed. To indicate the thickness of material being processed. This symbol does not specify the material being processed.	ISO 7000–1069
9.184		**Accumulator** To identify the device that stores fluid at appropriate working pressure of the hydraulic or pneumatic system. To identify the control for the accumulator.	ISO 7000–0870

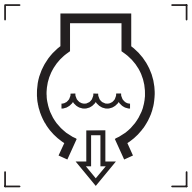
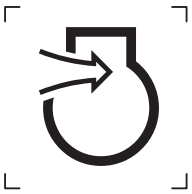
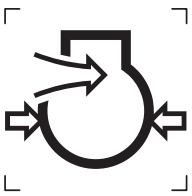
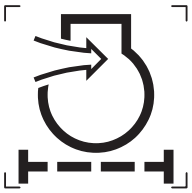
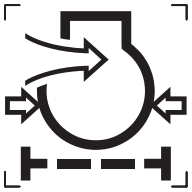
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.185		**Accumulator pressure; accumulator, pressurized** To identify the pressurized accumulator. To indicate that the accumulator is pressurized. To identify the control for setting the accumulator pressure. To indicate the accumulator pressure.	ISO 7000–3317
9.186		**Progress toward completion, general** To indicate the degree of progress toward completion of a process. Individual quadrants of the circle, starting with the upper right, are filled with appropriate line patterns, colours, or progressively darker grey scale when the process reaches the corresponding percentage completion.	ISO 7000–3318
9.187		**Progress toward completion, 25 % complete** To indicate that the process is 25 % complete. The lines in the first quadrant may be replaced with an appropriate fill-in colour or grey scale.	ISO 7000–3319
9.188		**Progress toward completion, 50 % complete** To indicate that the process is 50 % complete. The lines in the first and second quadrants may be replaced with appropriate fill-in colours or progressively darker grey scale.	ISO 7000–3320
9.189		**Progress toward completion, 75 % complete** To indicate that the process is 75 % complete. The lines in the first, second, and third quadrants may be replaced with appropriate fill-in colours or progressively darker grey scale.	ISO 7000–3321
9.190		**Progress toward completion, 100 % complete** To indicate that the process is 100 % complete. The lines in each quadrant may be replaced with appropriate fill-in colours or progressively darker grey scale.	ISO 7000–3322
9.191		**Capacitor** To identify the electrical device that stores energy in an electrical field.	ISO 7000–0820

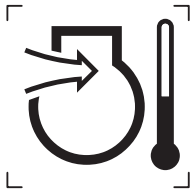
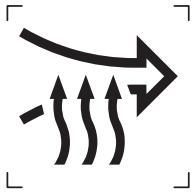
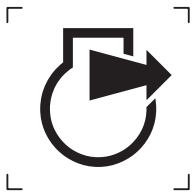
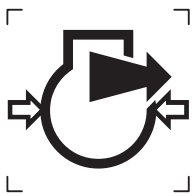
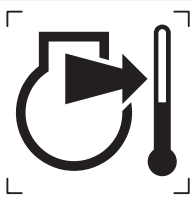
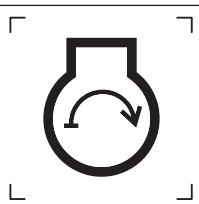
	Graphical symbol	Symbol title and description	ISO/IEC registration number
9.192		**Touch screen** To identify the touch screen. To indicate that the functions displayed on the screen are activated by touching the indicated location on the screen.	ISO 7000–2831
9.193		**Escape** To identify the control to cancel the current action or to exit from the current state. The letters ESC, commonly used on computer keyboards, are an acceptable alternative to ISO 7000–2029.	ISO 7000–2029
9.194		**Undo** To identify the control that reverses the previous action (except “undo”) and returns the object or function to its previous state.	IEC 60417–6051A
9.195		**Redo** To identify the control that re-instates the previously “undo” action and returns the object or function to its previous state.	ISO 7000–3403
9.196		**Synchronize** To identify the control that brings equipment components into synchronization or phase. To indicate that equipment components are synchronized or in phase.	ISO 7000–2740
9.197		**Ecological operation mode** To identify the operational range in which the machine is most energy efficient. To indicate that the machine is operating in its most energy-efficient range.	ISO 7000–3323
9.198		**Electronic image, normal aspect** To identify the control that displays an electronic image in its normal aspect. To indicate that the electronic image is displayed in its normal aspect.	IEC 60417–5407
9.199		**Electronic image, reversal right-to-left** To identify the control that displays an electronic image in a right-to-left reversal from its normal aspect. To indicate that the electronic image is displayed in a right-to-left reversal of its normal aspect.	IEC 60417–5408

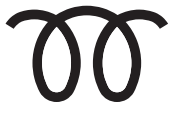
10 Engine symbols

	Graphical symbol	Symbol title and description	ISO/IEC registration number
10.1		**Engine; reciprocating internal combustion engine** To identify the internal combustion engine. To indicate the operational status of the engine. Use as a symbol element in the development of related symbols.	ISO 7000–1156
10.2		**Engine lubricating oil** To identify the fill point for engine oil. To identify the container for engine oil.	ISO 7000–1372
10.3		**Engine lubricating oil pressure** To identify the display that provides information about the engine oil pressure. To indicate the engine oil pressure.	ISO 7000–1374
10.4		**Engine lubricating oil level** To identify the display that provides information about the quantity of oil in the engine lubrication system. To indicate the engine oil level.	ISO 7000–1373
10.5		**Engine lubricating oil filter** To identify the display that provides information about the engine oil filter. To identify the engine oil filter. To indicate the operational status of the engine oil filter.	ISO 7000–1376
10.6		**Engine oil filter pressure** To identify the display that provides information about the pressure drop across the engine oil filter. To indicate the engine oil filter pressure.	ISO 7000–3404
10.7		**Engine lubricating oil temperature** To identify the display that provides information about the engine oil temperature. To indicate the engine oil temperature.	ISO 7000–1375

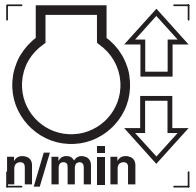
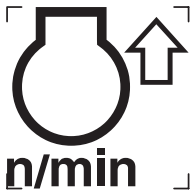
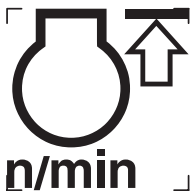
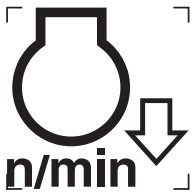
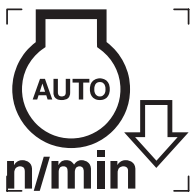
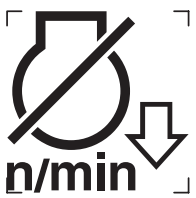
	Graphical symbol	Symbol title and description	ISO/IEC registration number
10.8		**Engine oil drain** To identify the control that drains oil from the engine. To indicate that oil is draining from the engine.	ISO 7000–3405
10.9		**Engine coolant** To identify the fill point for engine coolant. To identify the container for engine coolant.	ISO 7000–1377
10.10		**Engine coolant pressure** To identify the display that provides information about the engine coolant pressure. To indicate the engine coolant pressure.	ISO 7000–1379
10.11		**Engine coolant level** To identify the display that provides information about the quantity of coolant in the engine cooling system. To indicate the engine coolant level.	ISO 7000–1378
10.12		**Engine coolant filter** To identify the display that provides information about the engine coolant filter. To identify the engine coolant filter. To indicate the operational status of the engine coolant filter.	ISO 7000–1562

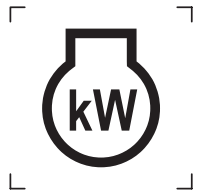
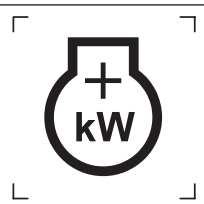
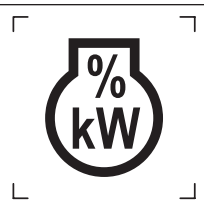
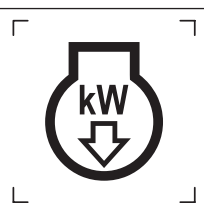
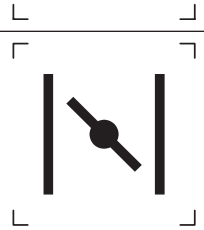
	Graphical symbol	Symbol title and description	ISO/IEC registration number
10.13		**Engine coolant temperature** To identify the display that provides information about the engine coolant temperature. To indicate the engine coolant temperature.	ISO 7000–1380
10.14		**Engine coolant drain** To identify the control that drains coolant from the engine cooling system. To indicate that coolant is draining from the engine cooling system.	ISO 7000–3406
10.15		**Engine intake air; combustion air** To identify the combustion air or air intake of an internal combustion engine. Intake (combustion) air symbol element shall be used outline.	ISO 7000–1381
10.16		**Engine intake air pressure; combustion air pressure** To identify the display that provides information about the engine intake (combustion) air pressure. To indicate the engine intake (combustion) air pressure. Intake (combustion) air symbol element shall be used outline.	ISO 7000–1382
10.17		**Engine intake air filter; combustion air filter** To identify the display that provides information about the engine intake (combustion) air filter. To identify the engine intake (combustion) air filter. To identify the location of the engine intake (combustion) air filter. To indicate the operational status of the engine intake air filter. Intake (combustion) air symbol element shall be used outline.	ISO 7000–1170
10.18		**Engine intake (combustion) air filter pressure** To identify the display that provides information about the pressure drop across the engine intake (combustion) air filter. To indicate the engine intake (combustion) air filter pressure. Intake (combustion) air symbol element shall be used outline.	ISO 7000–3407

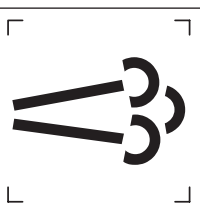
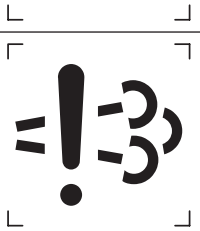
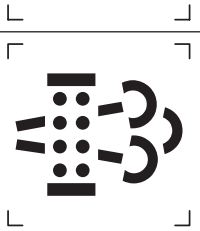
	Graphical symbol	Symbol title and description	ISO/IEC registration number
10.19		**Engine intake air temperature; combustion air temperature** To identify the display that provides information about the engine intake (combustion) air temperature. To indicate the engine intake (combustion) air temperature. Intake (combustion) air symbol element shall be used outline.	ISO 7000–1383
10.20		**Intake air, preheat** To identify the control that preheats the engine intake air. To indicate the operational status of the engine intake air preheat system.	ISO 7000–2434
10.21		**Engine exhaust gas** To identify the exhaust gas or exhaust gas outlet of an internal combustion engine. Exhaust gas symbol element shall be used filled.	ISO 7000–1384
10.22		**Engine exhaust gas pressure** To identify the display that provides information about the engine exhaust gas pressure. To indicate the engine exhaust gas pressure. Exhaust gas symbol element shall be used filled.	ISO 7000–1385
10.23		**Engine exhaust gas temperature** To identify the display that provides information about the engine exhaust gas temperature. To indicate the engine exhaust gas temperature. Exhaust gas symbol element shall be used filled.	ISO 7000–1386
10.24		**Engine start** To identify the control (such as a key switch position) used to start the engine. To indicate that the engine is being started (cranked) but is not yet operating.	ISO 7000–1387
10.25		**Engine, pre-start lubrication** To identify the control that lubricates engine components before the engine is started. To indicate that the engine is in the pre-start lubrication mode.	ISO 7000–3326
10.26		**Engine, electrical preheat (low temperature start aid)** To identify the control that electrically heats the engine to assist in starting at low temperatures. To indicate that the engine electrical preheat is activated.	ISO 7000–1704

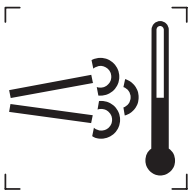
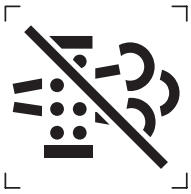
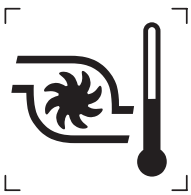
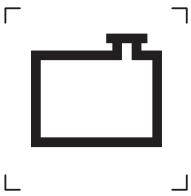
	Graphical symbol	Symbol title and description	ISO/IEC registration number
10.27		**Engine diesel preheat (low temperature start aid); engine glow plugs (low temperature start aid)** To identify the control that activates the diesel engine glow plugs to assist in starting the engine at low temperatures. To indicate that the diesel engine glow plugs are activated.	ISO 7000–0457
10.28		**Engine start aid, gas injection** To identify the control that injects a volatile gas (for example, ether) into the engine cylinders to assist in starting at low temperatures.	ISO 7000–1547
10.29		**Engine run** To identify the control position that indicates the engine, once started, continues to operate. To indicate that the engine is operating.	ISO 7000–2303
10.30		**Engine stop** To identify the control (such as a key switch position) used to stop the engine. To indicate that the engine is stopped or should be stopped. For automatic mode of operation, AUTO may be added below this symbol (see 10.31).	ISO 7000–1388
10.31		**Engine, automatic stop** To identify the control that automatically stops the engine after a specified period of idling. To indicate that the automatic engine stop function is in operation and that the engine stops after a specified period of idling.	Application of ISO 7000–1388
10.32		**Engine failure or malfunction** To indicate a possible engine failure or malfunction. To indicate that the engine is operating outside the specified range of parameters.	ISO 7000–1371

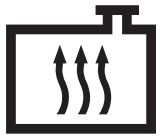
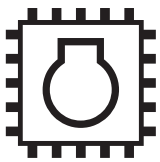
	Graphical symbol	Symbol title and description	ISO/IEC registration number
10.33		**Engine system temperature** To indicate that the temperature of one or more engine system functions (for example: oil, coolant, intake air, exhaust gas) is outside normal operating parameters. Use this symbol only when the monitored function is not specified. For engine oil temperature, use ISO 7000–1375 (see 10.7). For engine coolant temperature, use ISO 7000–1380 (see 10.13). For engine intake air temperature, use ISO 7000–1383 (see 10.19). For engine exhaust gas temperature, use ISO 7000–1386 (see 10.23).	ISO 7000–3327
10.34		**Crankcase air/ventilation filter** To identify the filter for the air that flows into the engine crankcase. To indicate the operational status of the crankcase air/ventilation filter.	ISO 7000–3408
10.35		**Engine rotational speed (revolutions per minute)** To identify the control that sets the rotational speed of the engine. To identify the display that provides information about the rotational speed of the engine. To indicate the rotational speed of the engine.	ISO 7000–1389
10.36		**Engine rotational speed, automatic control** To identify the switch or switch position for the automatic control of engine rotational speed. To indicate that engine rotational speed is in the automatic control mode.	ISO 7000–3409
10.37		**Engine rotational speed, first set speed** To identify the control that establishes the first set speed for the engine. To indicate the engine first set speed.	ISO 7000–3410
10.38		**Engine rotational speed, second set speed** To identify the control that establishes the second set speed for the engine. To indicate the engine second set speed. Use sequential numerals, in the location indicated, as needed for additional set speeds.	ISO 7000–3411
10.39		**Engine rotational speed, high idle speed** To identify the control for the high idle engine speed. To indicate that the engine is operating at high idle engine speed. Symbol ISO 7000–2883 is registered with the title “high engine speed”.	Application of ISO 7000–2883

	Graphical symbol	Symbol title and description	ISO/IEC registration number
10.40		**Engine rotational speed, low idle speed** To identify the control for the low idle engine speed. To indicate that the engine is operating at low idle engine speed. Symbol ISO 7000–2884 is registered with the title "low engine speed".	Application of ISO 7000–2884
10.41		**Engine rotational speed, increase/decrease** To identify the control that increases or decreases the engine rotational speed by switching between two specified values.	ISO 7000–3412
10.42		**Engine rotational speed, instantaneous increase** To identify the control that immediately increases the engine rotational speed by a specified amount.	ISO 7000–3413
10.43		**Engine rotational speed, automatic increase** To identify the control that automatically increases the engine rotational speed in response to specified performance criteria.	ISO 7000–3414
10.44		**Engine rotational speed, maximum** To identify the control that sets the maximum engine rotational speed. To indicate the maximum engine rotational speed.	ISO 7000–3415
10.45		**Engine rotational speed, instantaneous decrease** To identify the control that immediately decreases the engine rotational speed by a specified amount.	ISO 7000–2308
10.46		**Engine rotational speed, automatic decrease** To identify the control that automatically decreases the engine rotational speed in response to specified performance criteria.	ISO 7000–2309
10.47		**Engine rotational speed, instantaneous decrease, off or not available** To indicate that the control that decreases the engine rotational speed is switched off or is otherwise not available for use. To indicate that the engine speed is decoupled from the transmission speed so that a decrease in engine speed does not decrease transmission speed.	ISO 7000–3416

	Graphical symbol	Symbol title and description	ISO/IEC registration number
10.48		**Engine cooling fan** To identify the control for the fan which pulls air through the radiator to cool the engine. To indicate the operational status of the engine cooling fan.	ISO 7000–2798
10.49		**Engine cooling fan, failure or malfunction** To indicate that the engine cooling fan has failed, is malfunctioning, or is operating outside the specified range of parameters.	ISO 7000–3203
10.50		**Engine cooling fan, reverse rotation** To identify the control that reverses the direction of rotation of the engine cooling fan. To indicate that the engine cooling fan is operating in the reverse direction from normal.	ISO 7000–3328
10.51		**Engine power** To indicate the engine power output or the rated engine power.	ISO 7000–3329
10.52		**Engine, power boost** To identify the control which enables an increase in engine power beyond the normal maximum. To indicate that the engine is operating beyond its normal maximum power.	ISO 7000–2797
10.53		**Engine, per cent of rated power** To identify the control that sets the operating engine power as a percentage of rated engine power. To indicate the actual power output as a percentage of engine rated power.	ISO 7000–3330
10.54		**Engine, performance derate** To indicate that the engine performance is decreased (derated) by the engine controller because of operational parameters that are outside specified limits.	ISO 7000–3331
10.55		**Engine choke (start aid)** To identify the control that adjusts the air-to-fuel ratio in the combustion chamber to assist in starting the engine.	ISO 7000–0243

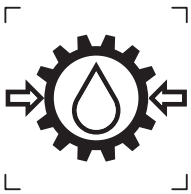
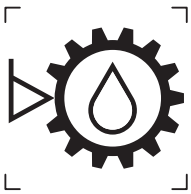
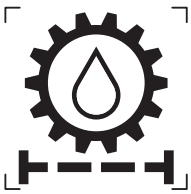
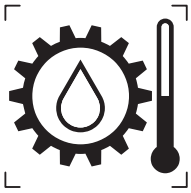
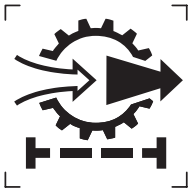
	Graphical symbol	Symbol title and description	ISO/IEC registration number
10.56		**Choke, open** To identify the control that opens the engine choke mechanism. To indicate that the choke is in the open condition.	ISO 7000–2589
10.57		**Choke, closed** To identify the control that closes the engine choke mechanism. To indicate that the choke is in the closed condition.	ISO 7000–2590
10.58		**Engine primer (start aid)** To identify the control that primes the engine with fuel to assist in starting.	ISO 7000–1370
10.59		**Engine emissions system** To identify the engine emissions system. To indicate the operational status of the engine emissions system.	ISO 7000–2945
10.60		**Engine emissions system, failure or malfunction** To indicate that the engine emissions system has failed or is malfunctioning.	ISO 7000–2596B
10.61		**Engine emissions system filter; diesel particulate filter; diesel particulate filter, regeneration** To identify the diesel particulate filter (filter for the engine emissions system). To identify the location of the diesel particulate filter. To indicate the operational status (degree of soot loading) of the diesel particulate filter. To indicate that the diesel particulate filter is in need of regeneration. To identify the control that requests or starts an active regeneration of the diesel particulate filter.	ISO 7000–2433

	Graphical symbol	Symbol title and description	ISO/IEC registration number
10.62		**Engine emissions system temperature; diesel particulate filter, regeneration underway** To indicate that the engine emissions system temperature may be high or falls outside of normal or specified operating parameters. To indicate the engine emissions system temperature.	Application of ISO 7000–2844A
10.63		To indicate that active regeneration of the diesel particulate filter is underway and elevated emission system temperatures are possible; engine operation can be affected. Either symbol may be used in order to coordinate with other symbols on the machine.	ISO 7000–2844B
10.64		**Engine emissions system filter, regeneration, disable (inhibit); diesel particulate filter, regeneration, disable (inhibit)** To identify the control that disables or prevents (inhibits) active regeneration of the engine emissions system filter (diesel particulate filter). To indicate that regeneration of the diesel particulate filter is disabled (inhibited).	ISO 7000–2947
10.65		**Diesel exhaust fluid (DEF); selective catalytic reduction (SCR) fluid** To identify the fluid used to reduce emissions from operation of the diesel engine. To identify the container or fill point for diesel exhaust fluid. To indicate that diesel exhaust fluid is being injected into the exhaust system. This symbol may be combined with a specific name of reduction agent. This symbol may be used to indicate DEF level.	ISO 7000–2946
10.66		**Turbocharger** To identify the control for the turbocharger. To indicate the operational status of the turbocharger.	ISO 7000–2107
10.67		**Turbocharger temperature** To identify the display that provides information about the temperature of the turbocharger. To indicate the turbocharger temperature. To indicate that the turbocharger temperature falls outside specified parameters.	ISO 7000–2646B
10.68		**Radiator; heat exchanger** To identify the radiator for the engine. To indicate the operational status of the radiator. Use as a symbol element in the development of related symbols.	ISO 7000–1390

	Graphical symbol	Symbol title and description	ISO/IEC registration number
10.69		**Radiator heater** To identify the control that heats the radiator. To indicate the operational status of the radiator heater. Symbol ISO 7000–2430 is registered with the title "road vehicle, engine coolant heating".	ISO 7000–2430
10.70		**Engine electronic control unit (ECU)** To identify the computer or microchip that collects data on the performance of engine, controls engine operations, or adjusts engine operating conditions in response to inputs.	ISO 7000–3417
10.71		**Engine, diagnostic port** To identify the location of the port to which engine diagnostic equipment is connected. To indicate that the engine diagnostic port is in use.	ISO 7000–3418

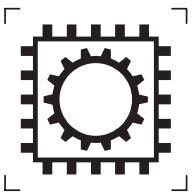
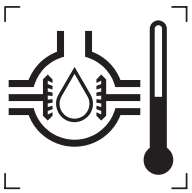
11 Transmission symbols

	Graphical symbol	Symbol title and description	ISO/IEC registration number
11.1		**Transmission** To identify the transmission. To indicate the operational status of the transmission. Use as a symbol element in the development of related symbols.	ISO 7000–1166A
11.2		**Manual transmission mode** To indicate that the transmission is functioning in manual operating mode whereby the transmission gear is selected by the operator and does not change until the operator selects a different gear. Symbol shall be used only when both manual and automatic transmission modes are available on the same machine or when it is important that the operator understands that only a manual transmission is available.	ISO 7000–3436
11.3		**Automatic transmission mode** To indicate that the transmission is functioning in automatic operating mode whereby the transmission gear is selected without intervention by the operator. Symbol shall be used only when both manual and automatic transmission modes are available on the same machine or when it is important that the operator understands that only an automatic transmission is available.	ISO 7000–3437

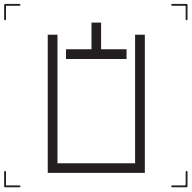
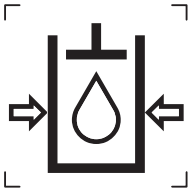
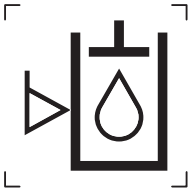
	Graphical symbol	Symbol title and description	ISO/IEC registration number
11.4		**Transmission oil** To identify the fill point for transmission oil. To identify the container for transmission oil.	ISO 7000–1397
11.5		**Transmission oil pressure** To identify the display that provides information about the oil pressure in the transmission lubrication system. To indicate the transmission oil pressure.	ISO 7000–1167
11.6		**Transmission oil level** To identify the display that provides information about the quantity of oil in the transmission lubrication system. To indicate the transmission oil level.	ISO 7000–1398A
11.7		**Transmission oil filter** To identify the display that provides information about the transmission oil filter. To identify the transmission oil filter. To identify the location of the transmission oil filter. To indicate the operational status of the transmission oil filter.	ISO 7000–1169
11.8		**Transmission oil temperature** To identify the display that provides information about the oil temperature in the transmission lubrication system. To indicate the transmission oil temperature.	ISO 7000–1168A
11.9		**Transmission failure or malfunction** To indicate that the transmission has failed or is malfunctioning or is not operating within the specified range of parameters.	ISO 7000–1396A
11.10		**Transmission breather filter** To identify the breather filter for the transmission. To identify the location of the transmission breather filter. To indicate the operational status of the transmission breather filter.	ISO 7000–3438
11.11		**Transmission, skip shift up** To identify the control that causes the transmission to increase its gear position by skipping the next available gear.	ISO 7000–3439

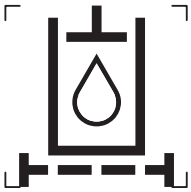
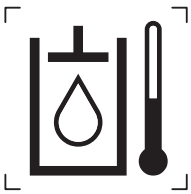
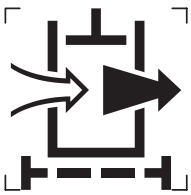
	Graphical symbol	Symbol title and description	ISO/IEC registration number
11.12		**Transmission, skip shift down** To identify the control that causes the transmission to decrease its gear position by skipping the next available gear.	ISO 7000–3440
11.13	N	**Transmission, neutral** To identify the control position that places the transmission in neutral. To indicate that the transmission is in neutral.	Letters used as symbols are not registered.
11.14	D	**Transmission, drive** To identify the control position that places the transmission in driving mode or its drive gear range. To indicate that the transmission is in driving mode or its drive gear range.	Letters used as symbols are not registered
11.15	H	**Transmission, high gear; transmission, high gear range** To identify the control position that places the transmission in high gear or its high gear range. To indicate that the transmission is in high gear or its high gear range.	Letters used as symbols are not registered.
11.16	L	**Transmission, low gear; transmission, low gear range** To identify the control position that places the transmission in low gear or its low gear range. To indicate that the transmission is in high gear or its low gear range.	Letters used as symbols are not registered.
11.17	F	**Transmission, forward gear; transmission, forward gear range** To identify the control position that places the transmission in forward gear or its forward gear range. To indicate that the transmission is in forward gear or its forward gear range.	Letters used as symbols are not registered.
11.18	R	**Transmission, reversing gear; transmission, reverse gear range** To identify the control position that places the transmission in reversing gear or its reverse gear range. To indicate that the transmission is in reversing gear or its reverse gear range.	Letters used as symbols are not registered.
11.19	P	**Transmission, park** To identify the control position that places the transmission in park. To indicate that the transmission is in park.	Letters used as symbols are not registered.

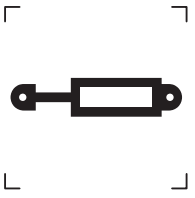
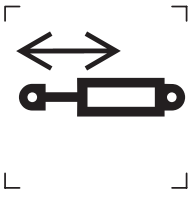
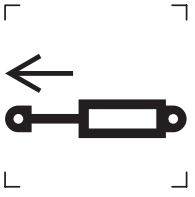
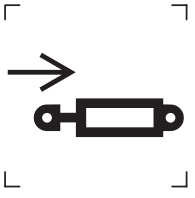
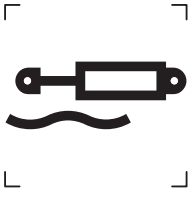
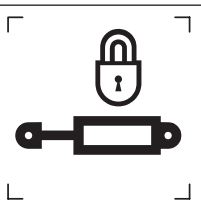
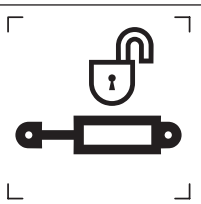
	Graphical symbol	Symbol title and description	ISO/IEC registration number
11.20	1	**Transmission, forward, first gear** To identify the control position that places the transmission in its first forward gear. To indicate that the transmission is in its first forward gear.	Numerals used as symbols are not registered.
11.21	2	**Transmission, forward, second gear** To identify the control position that places the transmission in its second forward gear. To indicate that the transmission is in its second forward gear.	Numerals used as symbols are not registered.
11.22	3	**Transmission, forward, third gear** To identify the control position that places the transmission in its third forward gear. To indicate that the transmission is in its third forward gear. Additional successive numerals may be used until the maximum number of forward gears is reached.	Numerals used as symbols are not registered.
11.23	R1	**Reverse first gear** To identify the control position that places the transmission in its first reverse gear. To indicate that the transmission is in its first reverse gear. Additional successive numerals may be used until the maximum number of reverse gears is reached.	Letters and numerals used as symbols are not registered.
11.24		**Clutch** To identify the equipment that connects two shafts so that they can either be locked together and spin at the same speed or be decoupled and spin at different speeds. To indicate the operational status of the clutch.	ISO 7000–1308
11.25		**Clutch temperature** To identify the display that provides information about the temperature of the clutch. To indicate the clutch temperature.	ISO 7000–3204

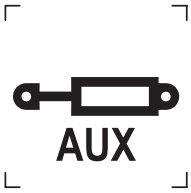
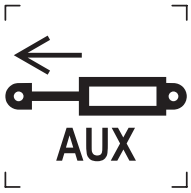
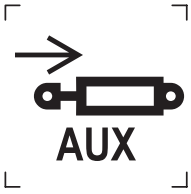
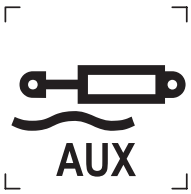
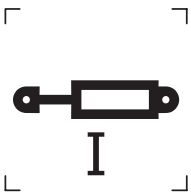
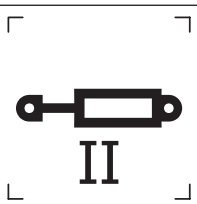
	Graphical symbol	Symbol title and description	ISO/IEC registration number
11.26		**Transmission electronic control unit (ECU)** To identify the computer or microchip that collects data on the performance of the transmission, controls transmission operations, or adjusts transmission operating conditions in response to inputs.	ISO 7000–3442
11.27		**Differential gear oil** To identify differential gear oil. To identify the fill point for differential gear oil. This symbol may be used to indicate differential gear oil level. If oil from the same reservoir is used to lubricate both the differential and the axle, use ISO 7000–3371 (see 19.10).	ISO 7000–3443
11.28		**Differential gear oil temperature** To identify the display that provides information about the temperature of the differential gear oil. To indicate the temperature of the differential gear oil.	ISO 7000–3332

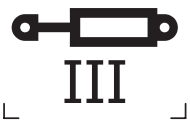
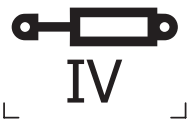
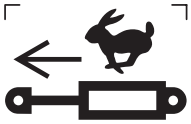
12 Hydraulic system symbols

	Graphical symbol	Symbol title and description	ISO/IEC registration number
12.1		**Hydraulic system** To identify the hydraulic system. To indicate the operational status of the hydraulic system. Use as a symbol element in the development of related symbols.	ISO 7000–1409
12.2		**Hydraulic oil** To identify the fill point for hydraulic oil. To identify the container for hydraulic oil. This symbol may be used instead of ISO 7000–1412 (see 12.4) to indicate hydraulic oil level.	ISO 7000–1411
12.3		**Hydraulic oil pressure** To identify the display that provides information about the oil pressure in the hydraulic system. To indicate the hydraulic oil pressure.	ISO 7000–1413
12.4		**Hydraulic oil level** To identify the display that provides information about the quantity of oil in the hydraulic system. To indicate the hydraulic oil level.	ISO 7000–1412

	Graphical symbol	Symbol title and description	ISO/IEC registration number
12.5		**Hydraulic oil filter** To identify the display that provides information about the hydraulic oil filter. To identify the hydraulic oil filter. To identify the location of the hydraulic oil filter. To indicate the operational status of the hydraulic oil filter.	ISO 7000–1415
12.6		**Hydraulic oil temperature** To identify the display that provides information about the oil temperature in the hydraulic system. To indicate the hydraulic oil temperature.	ISO 7000–1414
12.7		**Hydraulic system failure or malfunction** To indicate that the hydraulic system has failed or is malfunctioning or is not operating within the specified range of parameters.	ISO 7000–1410
12.8		**Hydraulic oil, unrestricted flow to sump** To indicate that the hydraulic oil is in unrestricted flow to the sump.	ISO 7000–3333
12.9		**Hydraulic system, breather filter** To identify the breather filter for the hydraulic system. To identify the location of the hydraulic system breather filter. To indicate the operational status of the hydraulic system breather filter.	ISO 7000–3344
12.10		**Auxiliary hydraulic system** To identify the auxiliary hydraulic system. To indicate the operational status of the auxiliary hydraulic system.	ISO 7000–3334
12.11		**Hydraulic system, off or not available** To identify the control that switches off the hydraulic system. To indicate that the hydraulic system is switched off or not available.	ISO 7000–3445
12.12		**Hydraulic system, lock** To identify the control that locks the hydraulic system to prevent operation. To indicate that the hydraulic system is in a locked state.	ISO 7000–3205

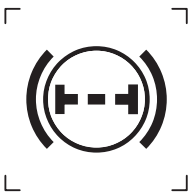
	Graphical symbol	Symbol title and description	ISO/IEC registration number
12.13		**Hydraulic system, unlock** To identify the control that unlocks the hydraulic system to allow operation. To indicate that the hydraulic system is in an unlocked state.	ISO 7000–3206
12.14		**Hydraulic cylinder** To identify the control for the hydraulic cylinder. To identify the location where the hoses for a hydraulic cylinder are attached to the machine. To indicate the operational status of the hydraulic cylinder.	ISO 7000-1569
12.15		**Hydraulic cylinder, extend and retract** To identify the control that either extends or retracts the rod of the hydraulic cylinder depending on the direction of control movement or the control position.	ISO 7000–3207
12.16		**Hydraulic cylinder, extend** To identify the control that extends the rod of the hydraulic cylinder. To indicate that the hydraulic cylinder rod is being extended or is in the extended (out) position	Application of ISO 7000-1570
12.17		**Hydraulic cylinder, retract** To identify the control that retracts the rod of the hydraulic cylinder. To indicate that the hydraulic cylinder rod is being retracted or is in the retracted (in) position.	Application of ISO 7000-1571
12.18		**Hydraulic cylinder, float** To identify the control that allows the rod to move freely in and out of the hydraulic cylinder with movement of the equipment attached to the cylinder rod. To indicate that the hydraulic cylinder is in the float condition.	ISO 7000-1661
12.19		**Hydraulic cylinder, lock** To identify the control that locks the hydraulic cylinder to prevent movement of the cylinder rod. To indicate that the hydraulic cylinder is locked.	ISO 7000–2642
12.20		**Hydraulic cylinder, unlock** To identify the control that unlocks the hydraulic cylinder to allow movement of the cylinder rod. To indicate that the hydraulic cylinder is unlocked	ISO 7000–2643

	Graphical symbol	Symbol title and description	ISO/IEC registration number
12.21		**Auxiliary hydraulic cylinder** To identify the auxiliary hydraulic cylinder.	ISO 7000–3335
12.22		**Auxiliary hydraulic cylinder, extend; auxiliary hydraulic cylinder, open** To identify the control that extends the cylinder rod of the auxiliary hydraulic cylinder.	ISO 7000–3446
12.23		**Auxiliary hydraulic cylinder, retract; auxiliary hydraulic cylinder, closed** To identify the control that retracts the cylinder rod of the auxiliary hydraulic cylinder.	ISO 7000–3447
12.24		**Auxiliary hydraulic cylinder, float** To identify the control that allows the rod to move freely in and out of the auxiliary hydraulic cylinder with movement of the equipment attached to the cylinder rod. To indicate that the auxiliary hydraulic cylinder is in the float condition.	ISO 7000–3448
12.25		**SCV (selective control valve) — Number 1** To identify the first selective control valve on the machine. To identify the control for the first SCV. Arabic numeral 1 may be substituted for Roman numeral I.	ISO 7000–3336
12.26		**SCV (selective control valve) — Number 2** To identify the second selective control valve on the machine. To identify the control for the second SCV. Arabic numeral 2 may be substituted for Roman numeral II.	Application of ISO 7000–3336

	Graphical symbol	Symbol title and description	ISO/IEC registration number
12.27		**SCV (selective control valve) — Number 3** To identify the third selective control valve on the machine. To identify the control for the third SCV. Arabic numeral 3 may be substituted for Roman numeral III.	Application of ISO 7000–3336
12.28		**SCV (selective control valve) — Number 4** To identify the fourth selective control valve on the machine. To identify the control for the fourth SCV. Arabic numeral 4 may be substituted for Roman numeral IV. Additional successive Roman or Arabic numerals may be used until the maximum number of selective control valves is reached.	Application of ISO 7000–3336
12.29		**Hydraulic cylinder, fast extension** To identify the control that rapidly extends the rod of the hydraulic cylinder. To indicate that the hydraulic cylinder is in the fast extension condition.	ISO 7000–3449

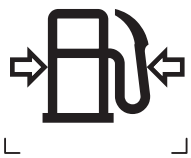
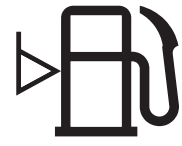
13 Brake symbols

	Graphical symbol	Symbol title and description	ISO/IEC registration number
13.1		**Brake system** To identify the brake system. To indicate the operational status of the brake system. Use as a symbol element in the development of related symbols.	ISO 7000–1399
13.2		**Brake fluid** To identify the fill point for brake fluid. To identify the container for brake fluid. This symbol may be used to indicate brake fluid level.	ISO 7000–1400
13.3		**Brake fluid drain** To identify the control that drains fluid from the brake system. To indicate that fluid is draining from the brake system.	ISO 7000–3359
13.4		**Brake system pressure** To identify the display that provides information about the pressure of the brake system. To indicate the brake system pressure.	ISO 7000–1402

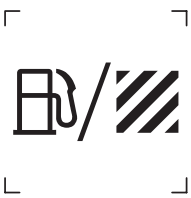
	Graphical symbol	Symbol title and description	ISO/IEC registration number
13.5		**Brake system filter** To identify the display that provides information about the brake system filter. To identify the brake system filter. To identify the location of the brake system filter. To indicate the operational status of the brake system filter.	ISO 7000–1404
13.6		**Brake system temperature; brake temperature** To identify the display that provides information about the temperature of the brake system or of individual brakes. To indicate the brake system temperature or individual brake temperature.	ISO 7000–1403A
13.7		**Brake failure; brake system malfunction** To indicate that the primary brake has failed or is malfunctioning or is not operating within the specified range of parameters.	Application of ISO 7000–0239
13.8		**Parking brake** To identify the control that activates the parking brake. To indicate the operational status of the parking brake.	ISO 7000–0238
13.9		**Park brake release** To identify the control that deactivates the parking brake.	ISO 7000–3360
13.10		**Park brake failure** To indicate that the park brake has failed or is malfunctioning or is not operating within the specified range of parameters.	ISO 7000–3361
13.11		**Brake system, first trailer or first additional circuit** To identify the control for the braking system of the first trailer or the first additional braking circuit. To indicate the operational status of the braking circuit of the first trailer or the first additional braking circuit.	Application of ISO 7000-1405

	Graphical symbol	Symbol title and description	ISO/IEC registration number
13.12		**Brake system, second trailer or second additional circuit** To identify the control for the braking system of the second trailer or the second additional braking circuit. To indicate the operational status of the braking circuit of the second trailer or the second additional braking circuit.	Application of ISO 7000-1406
13.13		**Anti-lock brake system** To indicate the operational status of the anti-lock brake system.	Application of ISO 7000–1407
13.14		**Worn brake linings** To indicate that the brake linings are worn beyond a specified amount.	ISO 7000–1408

14 Fuel symbols

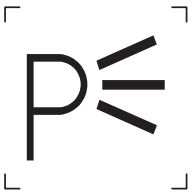
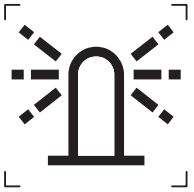
	Graphical symbol	Symbol title and description	ISO/IEC registration number
14.1		**Fuel; fuel system** To identify the fuel gauge. To identify the fill point for fuel. To identify the container for fuel. To indicate the operational status of the fuel system. This symbol may be used instead of ISO 7000–1551 (see 14.3) to indicate fuel level. Use as a symbol element in the development of related symbols.	ISO 7000–0245
14.2		**Fuel pressure** To identify the display that provides information about the pressure of the fuel system. To indicate the fuel pressure.	ISO 7000–1392
14.3		**Fuel level** To identify the display that provides information about the quantity of fuel in the fuel tank. To indicate the fuel level. ISO 7000–0245 (see 14.1) may be used as an alternative to this symbol to indicate fuel level.	ISO 7000–1551

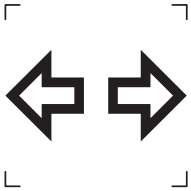
	Graphical symbol	Symbol title and description	ISO/IEC registration number
14.4		**Fuel filter** To identify the display that provides information about the fuel filter. To identify the fuel filter. To identify the location of the fuel filter. To indicate the operational status of the fuel filter.	ISO 7000–1393
14.5		**Fuel temperature** To identify the display that provides information about the fuel temperature. To indicate the fuel temperature.	ISO 7000–1394
14.6		**Fuel system, failure or malfunction** To indicate that the fuel system has failed or is malfunctioning or is not operating within the specified range of parameters.	ISO 7000–1391
14.7		**Fuel shut-off** To identify the control that interrupts the fuel flow to the engine. To indicate that the fuel flow to the engine has been interrupted. Use this symbol only for fuel shut-off control. Use ISO 7000–1388 (see 10.30) for “engine stop” control. Use symbol in 9.70 for “engine, urgent stop” control.	ISO 7000–1395B
14.8		**Diesel (compression ignition) fuel** To identify the control that selects the diesel fuel option in a multi-fuel engine. To indicate that diesel fuel is being used in a multi-fuel engine. To identify the fill point for diesel fuel. To identify the container for diesel fuel. Use this symbol only when it is necessary to identify the fuel as diesel fuel.	Application of ISO 7000–1541
14.9		**Fuel economy** To indicate current (instantaneous) fuel economy relative to a calibrated scale. To identify the fuel economy gauge or display.	ISO 7000–0641
14.10		**Fuel drain** To identify the control that drains fuel from the fuel tank. To indicate that fuel is draining from the fuel tank.	ISO 7000–3450

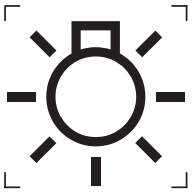
	Graphical symbol	Symbol title and description	ISO/IEC registration number
14.11		**Diesel fuel drain** To identify the control that drains diesel fuel from the diesel fuel tank. To indicate that diesel fuel is draining from the diesel fuel tank. Use this symbol only when it is necessary to identify the fuel as diesel fuel.	ISO 7000–3451
14.12		**Water in fuel** To indicate that the water content in the fuel has reached a specified concentration. To indicate the concentration of water in the fuel.	ISO 7000–3452
14.13		**Fuel system, water drain** To identify the control that drains water from the fuel. To indicate that water is draining from the fuel.	ISO 7000–3453
14.14		**Fuel consumption per hour** To identify the display that provides information on fuel consumption per hour of operation. To indicate fuel consumption rate as volume or mass per hour of operation.	ISO 7000–3454
14.15		**Fuel consumption per area worked** To identify the display that provides information on fuel consumption per unit of area worked. To indicate fuel consumption rate as volume or mass per unit of area worked.	ISO 7000–3362
14.16		**Area worked per fuel consumed** To identify the display that provides information on the area worked per unit of fuel consumed. To indicate the area worked per unit of fuel consumed.	ISO 7000–3363
14.17		**Fuel cooler** To identify the fuel cooler. To indicate the operational status of the fuel cooler.	ISO 7000–3364

15 Lighting symbols

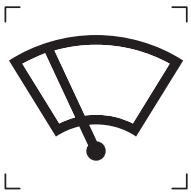
	Graphical symbol	Symbol title and description	ISO/IEC registration number
15.1		**Headlights, high beam; headlights, upper beam** To identify the control for the forward high intensity beam. To indicate that the operational status of the high beam headlights. Use blue for the "headlights, high beam" display, preferably by illuminating the symbol on a blue background. The number of lines representing the emitted light may be reduced from five to four if necessary for manufacturing reasons or for visual clarity in application.	ISO 7000–0082
15.2		**Headlights, low beam; headlights, dipped beam** To identify the control for the forward moderate intensity beam. To indicate the operational status of the low beam headlights. The number of lines representing the emitted light may be reduced from five to four if necessary for manufacturing reasons or for visual clarity in application.	ISO 7000–0083
15.3		**Work light** To identify the control that activates the work light. To indicate the operational status of the work light. The mirror image of this symbol (see 15.4) may be used for rear work lights. If one control operates both front and rear work lights, use this symbol. Multiple work lights can be identified by numbering or other suitable means. The number of lines representing the emitted light may be reduced from five to four if necessary for manufacturing reasons or for visual clarity in application.	ISO 7000–1204

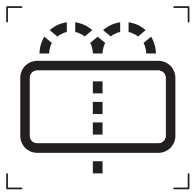
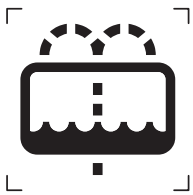
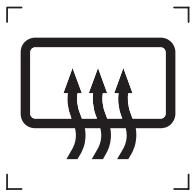
	Graphical symbol	Symbol title and description	ISO/IEC registration number
15.4		**Rear work light** To identify the control that activates the rear work light. To indicate the operational status of the rear work light. If one control operates both front and rear work lights, use ISO 7000–1204 (see 15.3). Multiple work lights can be identified by numbering or other suitable means. The number of lines representing the emitted light may be reduced from five to four if necessary for manufacturing reasons or for visual clarity in application.	Mirror image of ISO 7000–1204
15.5		**Parking lights** To identify the control that activates the parking lights. To indicate the operational status of the parking lights.	ISO 7000–0240
15.6		**Hazard warning** To identify the control for the hazard warning lights. To indicate the operational status of the hazard warning lights. For the “hazard warning” display, use white triangles on a red background. For the “hazard warning” control, use red triangles on a dark background or (preferably) white triangles on a red background.	ISO 7000–0085
15.7		**Interior compartment illumination; interior (dome) light** To identify the control for the interior (dome) light of the operator compartment (cab). To indicate the operational status of the interior (dome) light.	ISO 7000–1421B
15.8		**Low level interior illumination** To identify the control for the interior compartment lighting used to assist in maintaining the dark adaptation (night vision) of the operator while providing illumination to the interior. To indicate the operational status of the low level interior illumination.	Application of ISO 7000–2667
15.9		**Identification light; beacon** To identify the control for operation of the rotating or blinking light attached to the equipment. To indicate the operational status of the beacon.	ISO 7000–1141B

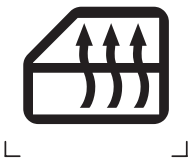
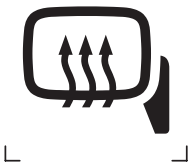
	Graphical symbol	Symbol title and description	ISO/IEC registration number
15.10		**Clearance lights; position lights** To identify the control that activates the low intensity illumination, typically located on the sides, front, and rear of the machine. To indicate the operational status of the position lights.	ISO 7000–0456
15.11		**Turn signals** To identify the control that activates the turn signals. To indicate the operational status of the turn signal. Arrows may be separated, with the left-pointing arrow indicating a left turn and the right-pointing arrow indicating a right turn. Use green for the “turn signal” display. Either fill the arrows with green or illuminate the symbol on a green background.	ISO 7000–0084
15.12		**Turn signal, first trailer** To identify the control that activates the turn signals for the first trailer towed behind the machine. To indicate the operational status of the turn signals for the first trailer. Do not separate arrows. Use green for the “turn signal, first trailer” display. Either fill the arrows with green or illuminate the symbol on a green background.	Application of ISO 7000–1419
15.13			Application of ISO 7000–2664
15.14		**Turn signal, second trailer** To indicate the operational status of the turn signals for the second trailer. Do not separate arrows. Use green for the “turn signal, second trailer” display. Either fill the arrows with green or illuminate the symbol on a green background.	Application of ISO 7000–1420
15.15			Application of ISO 7000–2664
15.16		**Front fog lights** To identify the control for the lights (usually yellow in colour) that provide forward illumination in foggy conditions. To indicate the operational status of the front fog lights. If one control operates both front and rear fog lights, use this symbol.	ISO 7000–0633

	Graphical symbol	Symbol title and description	ISO/IEC registration number
15.17		**Rear fog lights** To identify the control for the lights (usually yellow in colour) that assist visibility of the machine in foggy conditions. To indicate the operational status of the rear fog lights. If one control operates both front and rear fog lights, use ISO 7000–0633 (see 15.15).	ISO 7000–0634
15.18		**Master lighting switch** To identify the master lighting switch. To identify the control that enables or activates lighting devices or adjusts their illumination levels.	Application of IEC 60417–5012
15.19		**Instrument illumination** To identify the control that adjusts the degree of instrument illumination.	ISO 7000–1556
15.20		**Night-time instrument illumination** To identify the control that adjusts the instrument illumination to its night-time level. To identify the control that adjusts the illumination of the display screen to its night-time level.	ISO 7000–3455
15.21		**Reversing lights; back-up lights** To identify the control for operation of the reversing (back-up) lights. To indicate the operational status of the reversing (back-up) lights.	Application of ISO 7000–1146
15.22		**Headlight, cleaner; headlight, washer and wiper** To identify the control that activates the headlight wiper and simultaneously sprays washing fluid on the headlights. The number of lines representing the emitted light may be reduced from five to four if necessary for manufacturing reasons or for visual clarity in application.	ISO 7000–0250

16 Window and visibility symbols

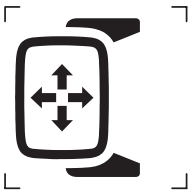
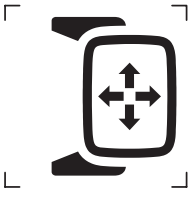
	Graphical symbol	Symbol title and description	ISO/IEC registration number
16.1		**Windscreen (windshield) wiper** To identify the control for the wipers that clears moisture from the windscreen (windshield).	ISO 7000–0086
16.2		**Windscreen (windshield) wiper, intermittent** To identify the control that activates the windshield wipers at intervals rather than continuously.	ISO 7000–0647
16.3		**Windscreen (windshield) washer** To identify the control that sprays washing fluid on the windshield.	ISO 7000–0088
16.4		**Windscreen (windshield) washer and wiper** To identify the control that activates the windshield wipers and simultaneously sprays washing fluid on the windshield.	ISO 7000–0087
16.5		**Windscreen (windshield) washer fluid** To identify the fill point for the windshield washer fluid. To identify the container for windshield washer fluid. If the fill point or container is used for both the windshield washer fluid and rear window washer fluid, use this symbol.	ISO 7000–1422
16.6		**Windscreen (windshield) demisting and defrosting** To identify the control that distributes air flow to the windshield to assist in removing frost, fog, and mist. To indicate the operational status of the windshield defroster.	ISO 7000–0635A
16.7		**Windshield wiper electric heater** To identify the control that heats the windshield wiper to remove frost and ice. To indicate the operational status of the windshield wiper heater.	Application of ISO 7000–2841
16.8		**Rear window wiper** To identify the control for the wipers that clear moisture from the rear window.	ISO 7000–0097

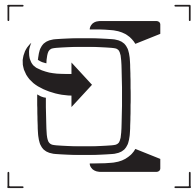
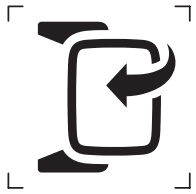
	Graphical symbol	Symbol title and description	ISO/IEC registration number
16.9		**Rear window wiper, intermittent** To identify the control that activates the rear window wiper at intervals rather than continuously.	ISO 7000–1424
16.10		**Rear window washer** To identify the control that sprays washing fluid on the rear window.	ISO 7000–0099
16.11		**Rear window washer and wiper** To identify the control that activates the rear window wiper and simultaneously sprays washing fluid on the rear window.	ISO 7000–0098
16.12		**Rear window washer fluid** To identify the fill point for the rear window washer fluid. To identify the container for rear window washer fluid. If the fill point or container is used for both the windshield washer fluid and rear window washer fluid, use ISO 7000–1422 (see 16.5).	ISO 7000–1423
16.13		**Rear window demisting and defrosting** To identify the control that electrically heats the rear window or distributes air flow to the rear window to assist in removing frost, fog, and mist. To indicate the operational status of the rear window defroster.	ISO 7000–0636A
16.14		**Side (lateral) window wiper** To identify the control for the wiper that clears moisture from the side (lateral) window. Because this symbol and its mirror image do not clearly differentiate left side window from right side window, this symbol should be used in conjunction with indicator lights or control positions that make clear which side window wiper (left or right) is being controlled or is in operation.	ISO 7000–3365

	Graphical symbol	Symbol title and description	ISO/IEC registration number
16.15		**Side (lateral) window, demisting and defrosting** To identify the control that distributes air flow to the side (lateral) windows to assist in removing frost, fog, and mist. To indicate the operational status of the side (lateral) window defroster. Because this symbol and its mirror image do not clearly differentiate left side window from right side window, this symbol should be used in conjunction with indicator lights or control positions that make clear which side window heater (left or right) is being controlled or is in operation.	ISO 7000–1425
16.16		**Side (lateral) window lift, power-operated** To identify the control that raises or lowers the side (lateral) window using a powered mechanism. Because this symbol and its mirror image do not clearly differentiate left side window from right side window, this symbol should be used in conjunction with indicator lights or control positions that make clear which side window wiper (left or right) is being controlled or is in operation.	ISO 7000–0648
16.17		**Exterior rear view mirror, horizontal type** To identify the horizontal type exterior rear view mirror. This symbol applies to horizontal-type exterior rear view mirrors. For vertical-type exterior rear view mirrors, use ISO 7000–2469 (see 16.26) with the arrows removed. This symbol shows the left side exterior rear view mirror. This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	ISO 7000–3366
16.18		**Exterior rear view mirror, heating, horizontal type (left side)** To identify the control that heats the left side exterior rear view mirrors to aid in removing frost, fog and mist. To indicate the operational status of the left side exterior rear view mirror. This symbol applies to horizontal type exterior rear view mirrors. For vertical type exterior rear view mirrors, use ISO 7000–2470 (see 16.24). This symbol shows the left side exterior rear view mirror. Use mirror image in 16.19 for right side mirror. If one control heats both the left-side and right-side horizontal-type mirrors, use this symbol. This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	ISO 7000–1426

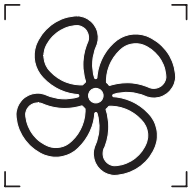
	Graphical symbol	Symbol title and description	ISO/IEC registration number
16.19		**Exterior rear view mirror heating, horizontal type (right side)** To identify the control that heats the right side exterior rear view mirrors to aid in removing frost, fog and mist. To indicate the operational status of the right side exterior rear view mirror. This symbol applies to horizontal-type exterior rear view mirrors. For vertical-type exterior rear view mirrors, use mirror image of ISO 7000–2470 (see 16.25). If one control heats both the left side and right side horizontal-type mirrors, use ISO 7000–1426 (see 16.18). This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	Mirror image of ISO 7000–1426
16.20		**Exterior rear view mirror, adjustment, horizontal type (left side)** To identify the control that adjusts the left side exterior rear view mirror to improve visibility. This symbol applies to horizontal-type exterior rear view mirrors. For vertical-type exterior rear view mirrors, use ISO 7000–2469 (see 16.26). This symbol shows the left side exterior rear view mirror. Use mirror image (see 16.21) for right side mirror. If one control adjusts both the left side and right side horizontal-type mirrors, use this symbol. This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	ISO 7000–1427
16.21		**Exterior rear view mirror, four-way adjustment, horizontal type (right side)** To identify the control that adjusts the right side exterior rear view mirror to improve visibility. This symbol applies to horizontal-type exterior rear view mirrors. For vertical-type exterior rear view mirrors, use mirror image of ISO 7000–2469 (see 16.26). If one control adjusts both the left side and right side horizontal type mirrors, use ISO 7000–1427 (see 16.20). This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	Mirror image of ISO 7000–1427

	Graphical symbol	Symbol title and description	ISO/IEC registration number
16.22		**Exterior rear view mirror, power folding, horizontal type (left side)** To identify the control that folds or unfolds the left side exterior rear view mirror. To indicate the operational status of the power folding exterior rear view mirror. This symbol applies to horizontal-type exterior rear view mirrors. For vertical-type exterior rear view mirrors, see ISO 7000–2584 (see 16.28). This symbol shows the left side exterior rear view mirror. Use mirror image (see 16.23) for right side mirror. If one control operates both the left side and right side horizontal mirrors, use this symbol. This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	ISO 7000–2553
16.23		**Exterior rear view mirror, power folding, horizontal type (right side)** To identify the control that folds or unfolds the right side exterior rear view mirror. To indicate the operational status of the right side power folding exterior rear view mirror. If one control operates both the left side and right side horizontal mirrors, use ISO 7000-2553 (see 16.22). This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	Mirror image of ISO 7000–2553
16.24		**Exterior rear view mirror, heating, vertical type (left side)** To identify the control that heats the exterior rear view mirrors to aid in removing frost, fog and mist. To indicate the operational status of the left side exterior rear view mirror heating system. This symbol applies to vertical-type exterior rear view mirrors. For horizontal-type exterior rear view mirrors, use ISO 7000–1426 (see 16.18). If one control heats both the left side and right side vertical mirrors, use this symbol. This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	ISO 7000–2470

	Graphical symbol	Symbol title and description	ISO/IEC registration number
16.25		**Exterior rear view mirror, heating, vertical type (right side)** To identify the control that heats the right side exterior rear view mirrors to aid in removing frost, fog and mist. To indicate the operational status of the right side exterior rear view mirror heating system. This symbol applies to vertical-type exterior rear view mirrors. For horizontal-type exterior rear view mirrors, use mirror image of ISO 7000–1426 (see 16.19). If one control heats both the left side and right side vertical mirrors, use ISO 7000–2470 (see 16.24). This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	Mirror image of ISO 7000–2470
16.26		**Exterior rear view mirror, four-way adjustment, vertical type (left side)** To identify the control that adjusts the left side exterior rear view mirror to improve visibility. This symbol applies to vertical-type exterior rear view mirrors. For horizontal-type exterior rear view mirrors, use ISO 7000–1427 (see 16.20). If one control adjusts both the left side and right side vertical mirrors, use this symbol. This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	ISO 7000–2469
16.27		**Exterior rear view mirror, four-way adjustment, vertical type (right side)** To identify the control that adjusts the right side exterior rear view mirror to improve visibility. This symbol applies to vertical-type exterior rear view mirrors. For horizontal-type exterior rear view mirrors, use mirror image of ISO 7000–1427 (see 16.21). If one control adjusts both the left side and right side vertical mirrors, use ISO 7000–2469 (see 16.26). This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	Mirror image of ISO 7000–2469

	Graphical symbol	Symbol title and description	ISO/IEC registration number
16.28		**Exterior rear view mirror, power folding, vertical type (left side)** To identify the control that folds or unfolds the left side exterior rear view mirror. This symbol applies to vertical-type exterior rear view mirrors. For horizontal-type exterior rear view mirrors, use ISO 7000–2553 (see 16.22). If one control operates both the left side and right side vertical mirrors, use this symbol. This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	ISO 7000–2584
16.29		**Exterior rear view mirror, power folding, vertical type (right side)** To identify the control that folds or unfolds the right side exterior rear view mirror. To indicate the operational status of the right side power folding exterior rear view mirror. This symbol applies to vertical type exterior rear view mirrors. For horizontal type exterior rear view mirrors, use mirror image of ISO 7000–2553 (see 16.23). If one control operates both the left side and right side vertical mirrors, use ISO 7000–2584 (see 16.28). This symbol is viewed from the perspective of a person looking forward along the longitudinal axis of the machine.	Mirror image of ISO 7000–2584

17 Climate control symbols

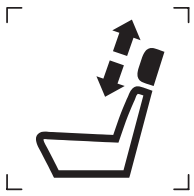
	Graphical symbol	Symbol title and description	ISO/IEC registration number
17.1		**Interior heating; heater** To identify the control for a function that provides heat to the operator compartment. To indicate the operational status of the heater. This symbol may be used in conjunction with other symbols to specify a particular application, in which case the horizontal line may be omitted.	ISO 7000–0637A
17.2		**Secondary heating** To identify the control that activates the secondary heating system. To indicate that the secondary heating system is operating.	ISO 7000–2578
17.3		**Cooling; air conditioning** To identify the control for operation of the air conditioning unit. To identify a cooled component, volume, or area. To indicate the operational status of the air conditioning unit.	Application of ISO 7000–0027
17.4		**Air conditioning, off or not available** To indicate that the air conditioning system is off or not available.	Application of ISO 7000–2626
17.5		**Automatic temperature control, heating and cooling** To identify the automatic temperature control for heating and cooling systems. To indicate the operational status of the automatic temperature control system.	ISO 7000–3367
17.6		**Ventilating fan; air circulating fan** To identify the control for the fan that circulates air, for example, within the operator compartment. To indicate the operational status of the ventilating or air circulating fan.	Application of ISO 7000–0089

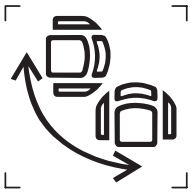
	Graphical symbol	Symbol title and description	ISO/IEC registration number
17.7		**Dehumidifier** To identify the control for operation of the dehumidifier, which extracts moisture from the air. To indicate the operational status of the dehumidifier.	ISO 7000–2068
17.8		**Moisture control; humidity control** To identify the control that sets the moisture content or relative humidity.	ISO 7000–0589
17.9		**Ventilation air flow, upper air outlet** To identify the control that allows air to flow from the upper air outlets. To indicate that air is flowing from the upper air outlets.	ISO 7000–1865
17.10		**Ventilation air flow, lower air outlet** To identify the control that allows air to flow from the lower air outlets. To indicate that air is flowing from the lower air outlets.	ISO 7000–1866
17.11		**Ventilation air flow, upper and lower outlets** To identify the control that allows air to flow from both the upper and lower air outlets. To indicate that air is flowing from both the upper and lower air outlets.	ISO 7000–1867
17.12		**Ventilation air flow, defrost and lower air outlet** To identify the control that allows air to flow from both the lower and defrost air outlets. To indicate that air is flowing from both the lower and defrost air outlets	Application of ISO 7000–1860A
17.13		**Ventilation air flow, upper, lower, and defrost** To identify the control that allows air to flow from the upper, lower, and defrost air outlets. To indicate that air is flowing from the upper, lower, and defrost air outlets.	ISO 7000–3456
17.14		**Operator cabin, general** To identify functions related to the operator cabin. Use as a symbol element in the development of related symbols. Shapes of specific machine forms may be used instead of this symbol.	ISO 7000–3368

	Graphical symbol	Symbol title and description	ISO/IEC registration number
17.15		**Ambient air temperature, outside operator cabin** To indicate the ambient air temperature outside of the operator cabin. Shapes of specific machine forms may be used instead of this symbol.	ISO 7000–3369
17.16		**Ambient air temperature, inside operator cabin** To indicate the ambient air temperature inside of the operator cabin. To identify the control that adjusts the ambient temperature inside the operator cabin. Shapes of specific machine forms may be used instead of this symbol.	ISO 7000–3370
17.17		**Operator cabin, outside air flow** To identify the control that allows fresh air to enter the operator cabin from outside. To indicate the operational status of the outside air flow function. Shapes of specific machine forms may be used instead of this symbol.	ISO 7000–3457
17.18		**Operator cabin, recirculating air flow** To identify the control that prevents entrance of air from outside the operator cabin and allows the cabin air to recirculate. To indicate the operational status of the recirculating air flow function. Shapes of specific machine forms may be used instead of this symbol.	ISO 7000–3458

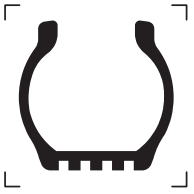
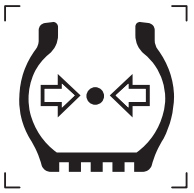
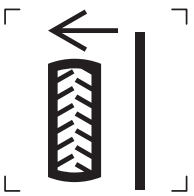
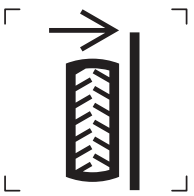
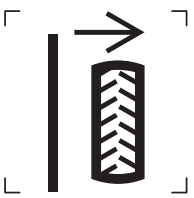
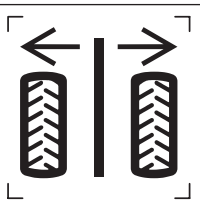
18 Seat symbols

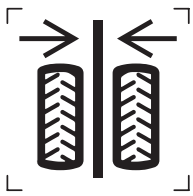
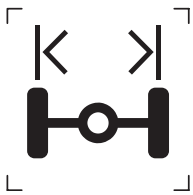
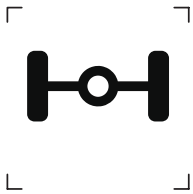
	Graphical symbol	Symbol title and description	ISO/IEC registration number
18.1		**Seat (side view)** To identify the seat from a side (profile) view. To identify the control for the seat. To indicate the operational status of the seat. Use as a symbol element in the development of related symbols.	ISO 7000–1705
18.2		**Seat (overhead view)** To identify the seat from an overhead (plan) view. To identify the control for the seat. To indicate the operational status of the seat. Use as a symbol element in the development of related symbols.	ISO 7000–2170
18.3		**Seat adjustment, longitudinal (fore and aft)** To identify the control that moves the entire seat forward or rearward.	ISO 7000–1428
18.4		**Seat adjustment, seatback recline** To identify the control that adjusts the angle of the seatback forward toward vertical and rearward away from vertical.	ISO 7000–1429
18.5		**Seat height adjustment** To identify the control that moves the entire seat upward or downward.	ISO 7000–1430
18.6		**Seat height adjustment, up** To identify the control that raises the seat. To indicate that the seat is being raised or has been adjusted to its maximum height.	ISO 7000–1706
18.7		**Seat height adjustment, down** To identify the control that lowers the seat. To indicate that the seat is being lowered or has been adjusted to its minimum height.	ISO 7000–1707

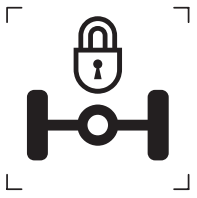
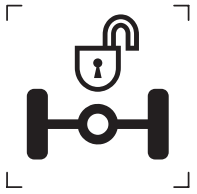
	Graphical symbol	Symbol title and description	ISO/IEC registration number
18.8		**Seat height adjustment, cushion front** To identify the control that adjusts the height of the front of the seat cushion.	ISO 7000–1431
18.9		**Seat height adjustment, cushion rear** To identify the control that adjusts the height of the rear of the seat cushion.	ISO 7000–1432
18.10		**Seat headrest height adjustment** To identify the control that raises or lowers the headrest.	Application of ISO 7000–1433
18.11		**Heated seat** To identify the control for the device that warms the seat cushion. Symbol may be used to identify the control for simultaneous heating of the seat cushion and seatback. The number of arrows representing heating may be reduced from three to two if necessary for manufacturing reasons or for visual clarity in application.	ISO 7000–0649A
18.12		**Seat, lumbar adjustment, in and out** To identify the control that adjusts the degree of lumbar support of a seat by changing the size or the rigidity of the lumbar support device.	ISO 7000–2171
18.13		**Seat, fore and aft isolator/attenuator** To identify the control that adjusts the amount or rate of fore-to-aft movement of the seat that is permitted when the machine is moving.	ISO 7000–2172
18.14		**Seat, lateral isolator/attenuator** To identify the control that adjusts the amount or rate of side-to-side movement of the seat that is permitted when the machine is moving. This symbol is viewed from the perspective of a person looking at the seat from above of the machine.	ISO 7000–2173
18.15		**Seat, swivel** To identify the control that allows the seat to swivel in either clockwise or anti-clockwise direction. This symbol is viewed from the perspective of a person looking at the seat from above of the machine.	ISO 7000–2174

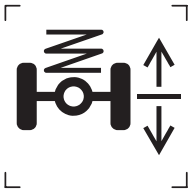
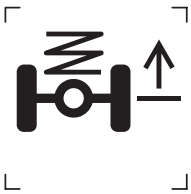
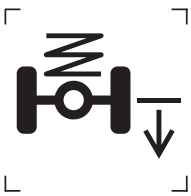
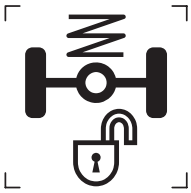
	Graphical symbol	Symbol title and description	ISO/IEC registration number
18.16		**Seat swing** To identify the control that allows the seat to swing to a different operating position. This symbol is viewed from the perspective of a person looking at the seat from above of the machine.	ISO 7000–3459
18.17		**Seat, weight adjustment** To identify the control that adjusts the stiffness of the seat suspension system based on the weight (mass) of the seated person. To indicate the operational status of the weight adjustment system.	ISO 7000–2175
18.18		**Seat, ride-damping adjustment** To identify the control that adjusts the stiffness of the seat suspension to control up-and-down movement of the seat when the machine is moving. To indicate the operational status of the ride-damping system.	Application of ISO 7000–2242
18.19		**Ventilated seat** To identify the control that circulates air inside the seat cushion to cool the seat.	ISO 7000–2556
18.20		**Active seat** To identify the control that activates the seat cushion or seatback or both. To indicate the operational status of the active seat cushion.	Application of ISO 7000–2627
18.21		**Seatbelt, lap belt only** To indicate the operational status of a two-point seatbelt (that is, a seatbelt with only a lap belt).	ISO 7000–1702
18.22		**Seatbelt, lap-and-shoulder belt** To indicate the operational status of a three-point seatbelt (that is, a lap-and-shoulder seatbelt).	ISO 7000–0249

19 Tyre, wheel, axle and suspension symbols

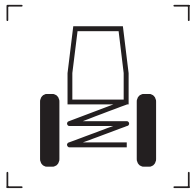
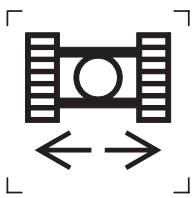
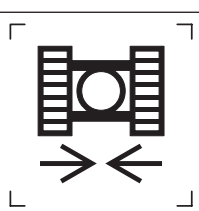
	Graphical symbol	Symbol title and description	ISO/IEC registration number
19.1		**Tyre** To identify tyre functions. To indicate the operational status of the tyre. Use as a symbol element in the development of related symbols.	ISO7000–2176
19.2		**Tyre pressure** To identify the control that sets or adjusts the tyre pressure. To identify the display that provides information about tyre pressure. To indicate the tyre pressure.	ISO 7000–1435
19.3		**Tyre failure or malfunction** To indicate that tyre pressure is outside normal operating parameters.	ISO 7000–1434A
19.4		**Wheel adjustment, left wheel, move out** To identify the control that moves the left wheel outward away from the machine. To indicate that the left wheel is moving outward away from the machine.	ISO 7000–2129
19.5		**Wheel adjustment, left wheel, move in** To identify the control that moves the left wheel inward toward from the machine. To indicate that the left wheel is moving inward toward the machine.	ISO 7000–2130
19.6		**Wheel adjustment, right wheel, move out** To identify the control that moves the right wheel outward away from the machine. To indicate that the left wheel is moving outward away from the machine.	ISO 7000–2131
19.7		**Wheel adjustment, right wheel, move in** To identify the control that moves the right wheel inward toward from the machine. To indicate that the right wheel is moving inward toward the machine.	ISO 7000–2132
19.8		**All-tread, move out** To identify the control that increases the distance between the machine and the wheels.	ISO 7000–3463

	Graphical symbol	Symbol title and description	ISO/IEC registration number
19.9		**All-tread, move in** To identify the control that decreases the distance between the machine and the wheels.	ISO 7000–3464
19.10		**Axle oil** To identify the fill point for axle oil. To identify the container for axle oil. If oil from the same reservoir is used to lubricate both the differential (see ISO 7000–3443 in 11.27) and the axle, use this symbol.	ISO 7000–3371
19.11		**Axle oil pressure** To identify the display that provides information about the axle oil pressure. To indicate the axle oil pressure.	ISO 7000–3372
19.12		**Axle oil filter** To identify the display that provides information about the axle oil filter. To identify the axle oil filter. To indicate the operational status of the axle oil filter.	ISO 7000–3373
19.13		**Axle width** To identify the display that shows axle width. To indicate the distance between the wheels on an axle.	ISO 7000–3374
19.14		**Axle, extend** To identify the control that extends the axles to provide a greater distance between the wheels.	Application of ISO 7000–2871
19.15		**Axle, retract** To identify the control that retracts the axles to provide a lesser distance between the wheels.	Application of ISO 7000–2870

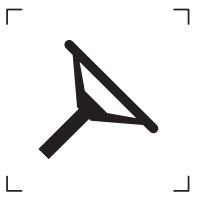
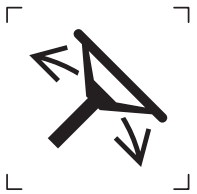
	Graphical symbol	Symbol title and description	ISO/IEC registration number
19.16		**Axle, lock** To identify the control that locks the axle. To indicate that the axle is locked. The lock symbol element may be moved to the right side of the axle symbol element.	ISO 7000–2872
19.17		**Axle, unlock** To identify the control that unlocks the axle. To indicate that the axle is unlocked. The unlock symbol element may be moved to the right side of the axle symbol element.	ISO 7000–3375
19.18		**Axle, first axle, lock** To identify the control that locks the first axle. To indicate that the first axle is locked. The numeral may be moved to below the axle symbol element with the lock symbol element moved to the right side of the axle symbol element.	ISO 7000–3376
19.19		**Axle, first axle, unlock** To identify the control that unlocks the first axle. To indicate that the first axle is unlocked. The numeral may be moved to below the axle symbol element with the unlock symbol element moved to the right side of the axle symbol element.	ISO 7000–3377
19.20		**Axle, second axle, lock** To identify the control that locks the second axle. To indicate that the second axle is locked. The numeral may be moved to below the axle symbol element with the lock symbol element moved to the right side of the axle symbol element.	Application of ISO 7000–3376
19.21		**Axle, second axle, unlock** To identify the control that unlocks the second axle. To indicate that the second axle is unlocked. The numeral may be moved to below the axle symbol element with the unlock symbol element moved to the right side of the axle symbol element.	Application of ISO 7000–3377
19.22		**Suspended axle** To identify the control that activates the damping mechanism between the axle and the rest of the machine chassis. To indicate the operational status of the suspended axle.	ISO 7000–2799

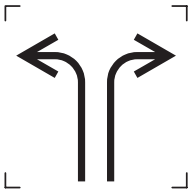
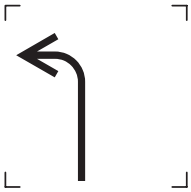
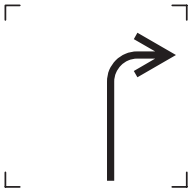
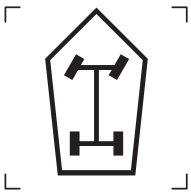
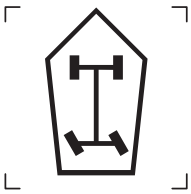
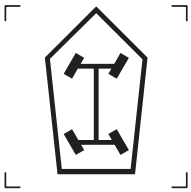
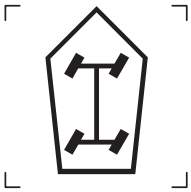
	Graphical symbol	Symbol title and description	ISO/IEC registration number
19.23		**Suspended axle, height adjustment (raise/lower)** To identify the control that adjusts the height of the suspended axle.	ISO 7000–3378
19.24		**Suspended axle, raise** To identify the control that raises the height of the suspended axle.	ISO 7000–3379
19.25		**Suspended axle, lower** To identify the control that lowers the height of the suspended axle.	ISO 7000–3380
19.26		**Suspended axle, lock** To identify the control that locks the suspended axle. To indicate that the suspended axle is locked. The lock symbol element may be moved to the right side of the suspended axle symbol element	ISO 7000–3381
19.27		**Suspended axle, unlock** To identify the control that unlocks the suspended axle. To indicate that the suspended axle is unlocked. The unlock symbol element may be moved to the right side of the suspended axle symbol element.	ISO 7000–3382
19.28		**Suspended axle, automatic operating mode** To identify the control that places the suspended axle into automatic operating mode. To indicate that the suspended axle is in automatic operating mode.	ISO 7000–3383

	Graphical symbol	Symbol title and description	ISO/IEC registration number
19.29		**Suspended axle, first axle** To identify the control that activates the damping mechanism between the first axle and the rest of the machine chassis. To indicate the operational status of the first suspended axle. The numeral may be moved to below the suspended axle symbol element.	ISO 7000–3384
19.30		**Suspended axle, second axle** To identify the control that activates the damping mechanism between the second axle and the rest of the machine chassis. To indicate the operational status of the second suspended axle. The numeral may be moved to below the suspended axle symbol element.	Application of ISO 7000–3384
19.31		**Suspended axle, first axle, lock** To identify the control that locks the first suspended axle. To indicate that the first suspended axle is locked. The numeral may be moved to below the axle symbol element with the lock symbol element moved to the right side of the axle symbol element.	ISO 7000–3385
19.32		**Suspended axle, first axle, unlock** To identify the control that unlocks the first suspended axle. To indicate that the first suspended axle is unlocked. The numeral may be moved to below the axle symbol element with the unlock symbol element moved to the right side of the axle symbol element.	ISO 7000–3386
19.33		**Suspended axle, second axle, lock** To identify the control that locks the second suspended axle. To indicate that the second suspended axle is locked. The numeral may be moved to below the axle symbol element with the lock symbol element moved to the right side of the axle symbol element.	Application of ISO 7000–3385
19.34		**Suspended axle, second axle, unlock** To identify the control that unlocks the second suspended axle. To indicate that the second suspended axle is unlocked. The numeral may be moved to below the axle symbol element with the unlock symbol element moved to the right side of the axle symbol element.	Application of ISO 7000–3386

	Graphical symbol	Symbol title and description	ISO/IEC registration number
19.35		**Cab suspension system** To indicate the operational status of the cab suspension system.	ISO 7000–3465
19.36		**Cab suspension system, lock** To identify the control that locks the cab suspension system in its current settings. To indicate that the settings of cab suspension system are locked.	ISO 7000–3466
19.37		**Cab suspension system, unlock** To identify the control that unlocks the cab suspension system and allows changes in its current settings. To indicate that the settings of the cab suspension system are unlocked.	ISO 7000–3467
19.38		**Cab suspension system, automatic operation** To identify the control that places the cab suspension system into automatic operating mode. To indicate that the cab suspension system is in automatic operating mode.	ISO 7000–3468
19.39		**Track carriage, extend** To identify the control that extends the tracks to provide a greater distance between the tracks. This symbol is viewed from the perspective of a person looking at the track carriage from above the machine.	ISO 7000–3242
19.40		**Track carriage, retract** To identify the control that retracts the tracks to provide a lesser distance between the tracks. This symbol is viewed from the perspective of a person looking at the track carriage from above the machine.	ISO 7000–3387

20 Steering symbols

	Graphical symbol	Symbol title and description	ISO/IEC registration number
20.1		**Steering system** To indicate the operational status of the steering system. Use as a symbol element in the development of related symbols.	ISO 7000–2305
20.2		**Steering system pressure** To identify the display that provides information about the steering system pressure. To indicate the steering system pressure.	ISO 7000–3388
20.3		**Steering system filter** To identify the filter for the steering system. To identify the location of the steering system filter. To indicate the operational status of the steering system filter.	ISO 7000–2306
20.4		**Steering system failure or malfunction** To indicate that the steering system has malfunctioned or failed. Depending on the severity of the malfunction, the symbol may be displayed as a black symbol on a yellow background or as a white symbol on a red background.	ISO 7000–2307
20.5		**Steering wheel, tilt control** To identify the control for adjustment of the steering wheel location by tilting the steering wheel up or down.	ISO 7000–2064
20.6		**Automatic steering; automatic guidance** To identify the control that activates the automatic steering or automatic guidance system. To indicate the operational status of the automatic steering or automatic guidance system.	Application of ISO 7000–2815
20.7		**Secondary steering system** To identify the control that activates the secondary steering system. To indicate that the operational status of the secondary steering system.	ISO 7000–3243
20.8		**Secondary steering system, failure or malfunction** To indicate that the secondary steering system has malfunctioned or failed.	ISO 7000–3469

	Graphical symbol	Symbol title and description	ISO/IEC registration number
20.9		**Lever steering, turn left/right** To identify the control for lever steering of the machine. To indicate the directions of movement of the control that effects a left turn and a right turn. The two arrows may be separated to indicate "turn right" and "turn left". Use separate controls identified with application of ISO 7000–0927 (see 20.11) for "turn right" and mirror image application of ISO 7000–0927 (see 20.10) for "turn left".	Application of ISO 7000–1681
20.10		**Lever steering, turn left** To identify the control for lever steering of the machine to the left. To indicate the direction of movement of the control that effects a turn to the left. For lever steering to the right, use the application of ISO 7000–0927 in 20.11.	Mirror image application of ISO 7000–0927
20.11		**Lever steering, turn right** To identify the control for lever steering of the machine to the right. To indicate the control direction that effects a turn to the right. For lever steering to the left, use the mirror image application of ISO 7000–0927 in 20.10.	Application of ISO 7000–0927
20.12		**Two-wheel steering, front** To identify the control that activates two-wheel steering of the front wheels. To indicate that the machine is steered by turning the two front wheels.	ISO 7000–2391
20.13		**Two-wheel steering, rear** To identify the control that activates two-wheel steering using the rear wheels. To indicate that the machine is steered by turning the two rear wheels.	ISO 7000–2392
20.14		**Four-wheel steering; all-wheel steering** To identify the control that activates the four-wheel or all-wheel steering mode. To indicate that the machine is steered by turning the front wheels and rear wheels in opposite directions.	ISO 7000–2393
20.15		**Crab steering** To identify the control that activates the crab steering mode. To indicate that the machine is steered by turning the front wheels and rear wheels in the same direction.	ISO 7000–2394

Annex A
(informative)

Guidelines for the development and evaluation of graphical symbols

A.1 General

This annex provides guidelines for the development and evaluation of graphical symbols intended for inclusion in ISO 6405 and for registration in ISO 7000. The guidelines are necessarily flexible, because it is impossible to anticipate all potential graphical limitations in their application. However, following these guidelines is expected to result in graphical symbols that satisfy the requirements of IEC 80416-1 and ISO 80416-2 and thereby qualify for potential standardization and registration in ISO 7000.

A.2 Basic principles

A.2.1 Symbols should be as simple, clear, distinct, and logical as possible to enhance recognition and reproduction.

A.2.2 Symbols should incorporate base symbol elements which can be used alone or combined as necessary into a logical graphical arrangement to form a symbolic language which, if not immediately obvious, can at least be learned.

A.2.3 Graphical clarity should prevail when graphical limitations conflict with logical consistency, because no graphical symbol is recognizable, no matter how logical it might be, if the symbol cannot be distinguished from other graphical symbols or if the individual symbol elements cannot be distinguished from each other.

A.2.4 A minimum of detail should be included in individual graphical elements and composite symbols. Only details which enhance recognition should be included, even if other details are accurate renditions of the machine or component.

A.2.5 The key consideration is the essential message that the graphical symbol is trying to convey. It is critically important to know what happens when a control is activated, but often of little or no importance to know how the functional result is achieved.

A.3 Fundamental symbol elements

A.3.1 General

Symbol elements can be divided into a number of fundamental types, including those described in this clause.

A.3.2 Operational system symbols

Symbol elements representing operational systems (for example: engines, transmissions, hydraulics, brakes) or functional equipment (for example: dozer blades, loader buckets, grapples).

A.3.3 Vital fluid symbols

Symbol elements representing vital machine fluids (for example: oil, fuel, coolant, air).

A.3.4 Functional condition or operational status symbols

Symbol elements representing the status of vital fluids (for example: pressure, temperature, level) or the functional condition of operational system (for example: lock, unlock, malfunction).

A.3.5 Movement or location symbols

A.3.5.1 Symbol elements representing spatial movement, settings, or location of machines, parts or components (for example: direction of movement arrows).

A.3.5.2 Symbol elements representing rotational movement of machine parts or components.

A.3.6 Continuous operation symbols

Symbol elements representing continuous operation of machine parts, components or functions.

A.4 Base composite symbols

When necessary, symbols representing vital machine fluids should be combined with symbols representing operational systems to create base composite symbols. For example: the oil (fluid) symbol should be placed within the engine symbol to represent engine oil, within the transmission symbol to represent transmission oil, within the hydraulic system to represent hydraulic oil and within the brake symbol to represent brake fluid.

A.5 Vital status composite symbols

A.5.1 General

Composite symbols representing the status of vital fluids or the functioning of operational systems should be formed by combining multiple symbol elements in logical relationships, which should be as consistent as practicable from symbol to symbol.

A.5.2 Fluid monitoring or status symbols

A.5.2.1 In general, fluid monitoring or status indicating symbols (for example: temperature, pressure, level) should be placed outside the base composite symbols (for example: engine oil, transmission oil, hydraulic oil). In some cases, the shape of base composite symbols does not permit placement of a monitoring symbol outside the base composite symbol. In such cases, the monitoring symbol should be placed inside the base composite symbol (for example: brake system pressure, brake system filter, brake system temperature).

A.5.2.2 The relative position of fluid status symbols and base composite symbols for operational systems may vary as needed for graphical clarity. For example: composite symbols for monitoring fluid temperature should combine the thermometer (the temperature symbol element) with the base composite symbol, with the thermometer placed to the right-hand side of the base composite symbol. Composite symbols for monitoring fluid level should place the level symbol element to the left of the base composite symbol, and composite symbols for monitoring the status of fluid filters should place the filter symbol element below the base composite symbol.

A.5.2.3 For application in practice, the vital status symbol elements can also be used in a series presentation, with the base composite symbol located to the left or above the presentation of vital status symbol elements. For example: the engine oil symbol may be followed by pressure, level or temperature symbol elements. This approach, however, is generally less desirable than developing and using individual composite symbols.

A.5.3 Failure or malfunction symbols

Composite symbols representing failure or malfunction of an operational system should place the malfunction symbol element within the symbol for the operational system. For example: the brake system failure symbol should place the exclamation mark (the malfunction symbol element) inside the bake system symbol. In some cases, the shape of a symbol for the operational system does not permit inside placement of the malfunction symbol element. In such cases, the malfunction symbol element should be placed alongside the symbol for the operational system; to avoid confusion with the temperature symbol element, the malfunction symbol element should be placed to the left-hand side of the symbol for the operational system.

A.6 Movement or location symbols

A.6.1 Controlled spatial movement symbols

A.6.1.1 Composite symbols representing controlled spatial movement of equipment or machine elements, whether visible or invisible to the operator, should show both the final position of the equipment or machine element effected by actuation of the controls and an arrow to indicate the direction of movement experienced by that equipment or machine element.

A.6.1.2 For example: symbols on a control for raising a boom should show the boom in its raised position and a movement arrow pointing up. Symbols on a control for lowering a boom should show the boom in its lowered position and a movement arrow pointing down. The arrows should be located such that the two alternative motions of the boom are clearly differentiated by both the location of the boom and the location of the arrows.

A.6.2 Incremental adjustment symbols

Composite symbols representing controls for incremental adjustment of component position or operating parameters rather than significant changes in location or orientation should use dimension lines and dimension arrows to indicate adjustments.

A.7 Rotational movement symbols

Composite symbols representing direction of rotational movement should combine a symbol element for the equipment or machine element with arrows that differentiate clockwise or anti-clockwise rotation.

A.8 Symbols for component actuation

Where symbols are associated with controls that actuate a functional component, it is recommended to use indicator lights, symbols for engage and disengage or comparable means in association with the symbol representing the machine component being activated or deactivated.

A.9 International Standards on symbol development and arrow usage

A.9.1 The development of new symbols should conform to the basic principles for the creation of symbols for use on equipment (see IEC 80416-1) and to the principles for the use of arrows (see ISO 80416-2).

A.9.2 As a general principle, there should be only one symbol for a given function. As a practical matter, however, alternative symbols are permitted, in particular when there are multiple existing and well-established standard symbols or when a new symbol is needed and should be harmonized with other symbols for the same type of equipment.

Bibliography

[1] ISO 6405-2, *Earth-moving machinery — Symbols for operator controls and other displays — Part 2: Symbols for specific machines, equipment, and accessories*

[2] ISO 7000[1)], *Graphical symbols for use on equipment — Registered symbols*

[3] IEC 60417[1)], *Graphical symbols for use on equipment*

[4] 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)*

1) The graphical symbol collections of ISO 7000 and IEC 60417 can be previewed and purchased on the Online Browsing Platform (OBP), www.iso.org/obp.

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