INTERNATIONAL STANDARD

ISO 11192

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Small craft — Graphical symbols

Petits navires — Symboles graphiques

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Contents

Page

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 11192 was prepared by Technical Committee ISO/TC 188, *Small craft*.

Small craft — Graphical symbols

1 Scope

This International Standard specifies graphical symbols for operator controls, gauges, tell-tales, indicators, instructions and warnings against risks in small craft and for engines and other equipment intended to be used for small craft of up to 24 m length of hull.

2 Normative references

The following referenced documents are indispensable for the application 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 3864-1:2002, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs in workplaces and public areas*

ISO 7000:2004, *Graphical symbols for use on equipment — Index and synopsis*

ISO 7010:2003, *Graphical symbols — Safety colours and safety signs — Safety signs used in workplaces and public areas*

ISO 17724:2003, *Graphical symbols — Vocabulary*

IEC 60417-DB-12M:2002, *Graphical symbols for use on equipment*

IEC 80416-1:2001, *Basic principles for graphical symbols for use on equipment — Part 1: Creation of symbol originals*

3 Terms and definitions

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

3.1
graphical symbol
visually perceptible figure with a particular meaning used to transmit information independently of language

[ISO 17724:2003, definition 31]

3.2
graphical symbol element
part of a graphical symbol with a particular meaning

[ISO 17724:2003, definition 32]

NOTE 1 Letters, numerals, punctuation marks and mathematical symbols may be used as graphical symbol elements.

NOTE 2 To represent certain concepts, graphical symbols or graphical symbol elements may be combined to form a new graphical symbol. The meaning assigned to the new graphical symbol is consistent with the meanings of the individual graphical symbols or graphical symbol elements used.

3.3
graphical symbol original
graphical symbol with which a referent, a graphical representation and a description of the application are associated

[ISO 17724:2003, definition 33]

4 Use of graphical symbols

Instructions for use of graphical symbols, including symbol originals and restyled symbols, and for positioning and size of graphical symbols are given in ISO 7000, ISO 7010, IEC 60417-DB-12M and IEC 80416-1.

5 Contents

This International Standard contains symbols for

— media;

— conditions;

— boat components;

— marine engine components;

— boat operation;

— engine operation;

— warning, caution, malfunction;

— miscellaneous.

6 Symbol colours

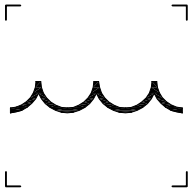
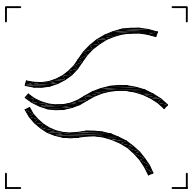
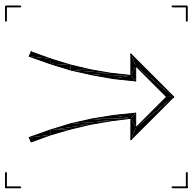
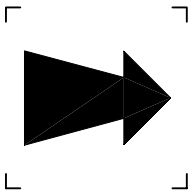
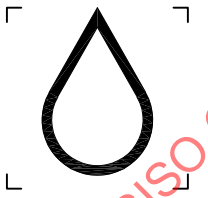
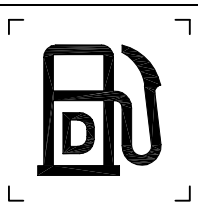
When colours are used in symbols, they shall have the following meanings:

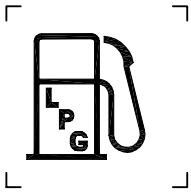
red danger or unsafe or hot

yellow or orange caution

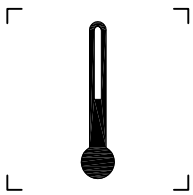
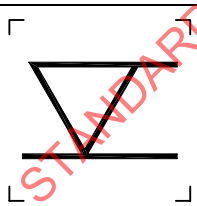
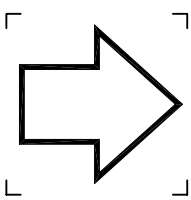
The use of colours for safety signs shall be in accordance with ISO 3864-1.

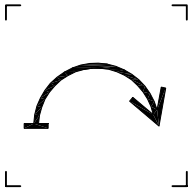
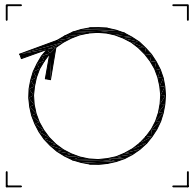
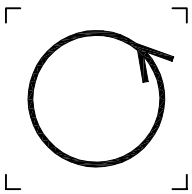
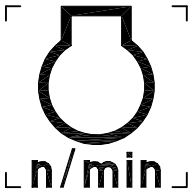
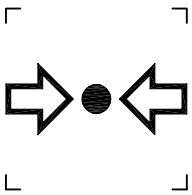
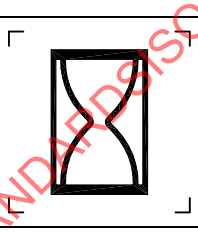
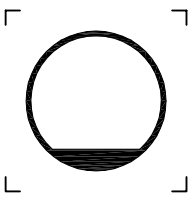
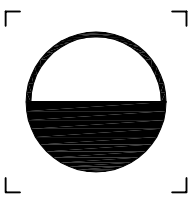
7 Media

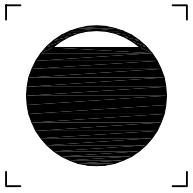
No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
7.1		Fresh water Fresh-water-based coolant	To signify functions associated with fresh-water-based coolant.	ISO 7000-0536
7.2		Air, general	To indicate functions associated with the use of ambient air.	ISO 7000-0537
7.3		Intake air (for combustion)	To signify functions associated with intake air.	ISO 7000-1604
7.4		Exhaust gas	To signify functions associated with exhaust gas.	ISO 7000-1605
7.5		Oil	To identify functions associated with oil.	ISO 7000-1056
7.6		Fuel, general	To signify functions associated with fuel. To signify the fuel quantity indicator. At the fuel fill to indicate a petrol-type fuel.	ISO 7000-0245
7.7		Diesel fuel	To signify functions associated with fuel. At the fuel fill to indicate the use of diesel fuel.	ISO 7000-1541

No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
7.8		Unleaded fuel	To signify functions associated with fuel. At the fuel fill to indicate the use of unleaded petrol fuel.	ISO 7000-0237
7.9		LPG	To signify functions associated with the use of liquified petroleum gas.	ISO 7000-2489

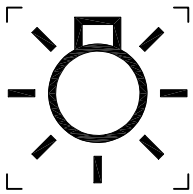
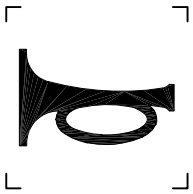
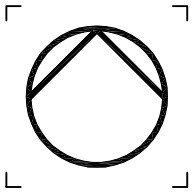
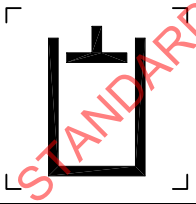
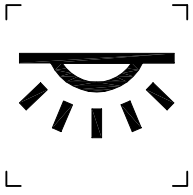
8 Conditions

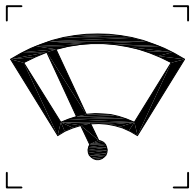
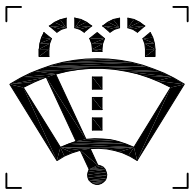
No.	Symbol form/shape	Title	Function/application	ISO/IEC Registration number
8.1		Rotational speed	To signify functions associated with rotational speed expressed in r/min.	ISO 7000-0010
8.2		Temperature	To signify functions associated with temperature.	ISO 7000-0034
8.3		Level indicator	To signify a liquid level. NOTE This symbol should be used in the orientation shown. When used in composite symbols to indicate fluid levels, the vertical line at the apex of the pointer may be replaced by the appropriate symbol.	ISO 7000-0159
8.4		Flow/direction	To indicate the direction of a function. To signify functions associated with controls.	ISO 7000-0251

No.	Symbol form/shape	Title	Function/application	ISO/IEC Registration number
8.5		Cranking	To signify functions associated with starting or cranking.	ISO 7000-1365
8.6		Clockwise rotation	To indicate engine or equipment rotation in a clockwise direction.	ISO 7000-0258
8.7		Anti-clockwise rotation	To indicate engine or equipment rotation in an anti-clockwise direction.	ISO 7000-0937
8.8		Engine rotational speed	To signify functions associated with engine rotational speed/ frequency expressed in r/min.	ISO 7000-1389
8.9		Pressure	To signify functions associated with pressure. NOTE When used in symbol combinations, the appropriate symbol is used between the arrows to indicate the medium pressurized.	ISO 7000-1701
8.10		Elapsed hours	To indicate the cumulative elapsed hours of operating time.	ISO 7000-1366
8.11		Volume empty	To indicate that liquid volume is empty.	ISO 7000-1563
8.12		Volume half-full	To indicate that liquid volume is half-full.	ISO 7000-1564

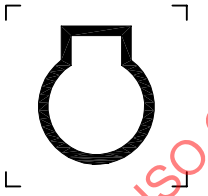
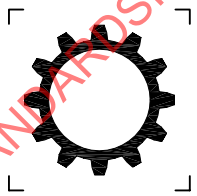
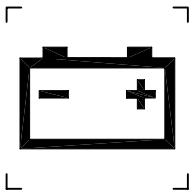
No.	Symbol form/shape	Title	Function/application	ISO/IEC Registration number
8.13		Volume full	To indicate that liquid volume is full.	ISO 7000-1565

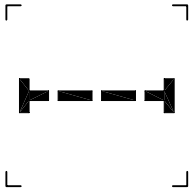
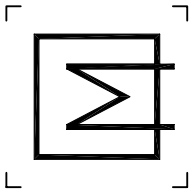
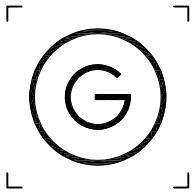
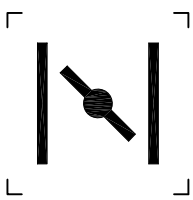
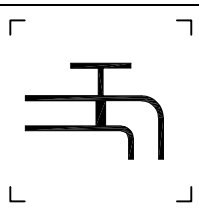
9 Boat components

No.	Symbol form/shape	Title	Function/application	ISO/IEC Registration number
9.1		Light	To signify light functions.	IEC 60417-5012
9.2		Horn	To signify horn function.	ISO 7000-0244
9.3		Pump	To signify functions associated with (liquid) pumps.	ISO 7000-0134
9.5		Hydraulic system	To signify functions associated with hydraulic systems.	ISO 7000-1409
9.6		Interior light	To signify functions associated with the use of an interior light.	ISO 7000-1421

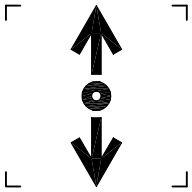
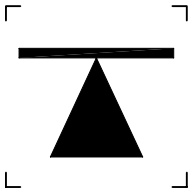
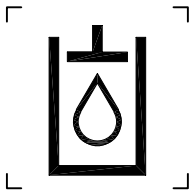
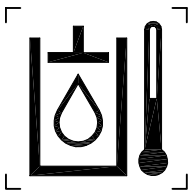
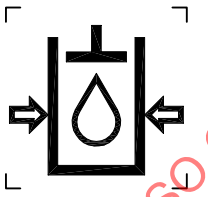
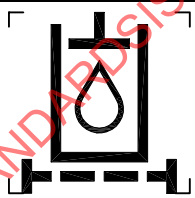
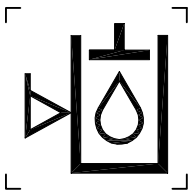
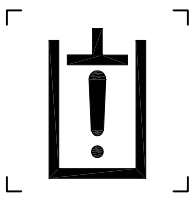
No.	Symbol form/shape	Title	Function/application	ISO/IEC Registration number
9.7		Windscreen wiper	To signify functions associated with windscreen wipers.	ISO 7000-0086
9.8		Windscreen washer	To signify functions associated with windscreen washers.	ISO 7000-0088
9.9		Windscreen wiper and washer	To signify functions associated with windscreen wipers and washers.	ISO 7000-0087

10 Marine engine components

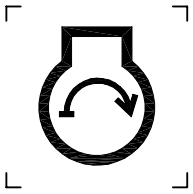
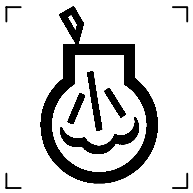
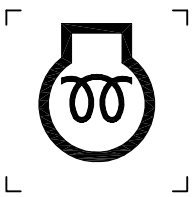
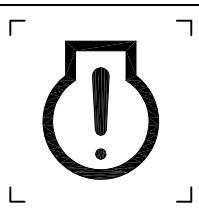
No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
10.1		Engine	To signify functions associated with the engine.	ISO 7000-1156
10.2		Transmission	To signify functions associated with transmission.	ISO 7000-1166
10.3		Battery	To indicate the condition of battery charging.	ISO 7000-0247

No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
10.4		Filter	To signify functions associated with filtering.	ISO 7000-1369
10.5		Heat exchanger	To signify functions associated with heat exchangers.	ISO 7000-0111A
10.6		Electric generator	To signify functions associated with electric generators.	ISO 7000-1153
10.7		Engine start aid, choke	To indicate the control to operate the choke.	ISO 7000-0243
10.9		Water flushing connector	To indicate water flushing connector.	IEC 60417-5573
10.10		Lift point	To indicate a point at which to lift.	ISO 7000-1368

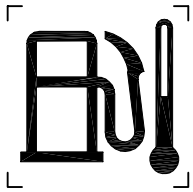
11 Boat operation

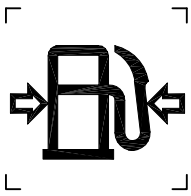
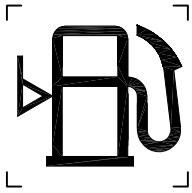
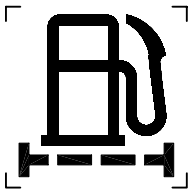
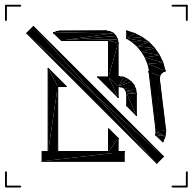
No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
11.1		Control lever operating direction — dual direction: forward/neutral/reverse (shift only)	To indicate the control to operate the direction lever. NOTE Place appropriate symbols at extremes of directional arrows.	ISO 7000-1436
11.2		Lift point or proper location of slings	To indicate the point at which to lift the boat or to place slings.	ISO 7000-0542
11.3		Hydraulic oil	To signify functions associated with hydraulic oil. NOTE If hydraulic oil level alone is to be displayed, this symbol may be used to indicate level.	ISO 7000-1411
11.4		Hydraulic oil temperature	To indicate the hydraulic oil temperature.	ISO 7000-1414
11.5		Hydraulic oil pressure	To indicate the hydraulic oil pressure.	ISO 7000-1413
11.6		Hydraulic oil filter	To indicate the hydraulic oil filter or filter condition.	ISO 7000-1415
11.7		Hydraulic oil level	To indicate the hydraulic oil level.	ISO 7000-1412
11.8		Hydraulic system failure/ malfunction	To indicate a possible hydraulic system failure or malfunction.	ISO 7000-1410

12 Engine operation

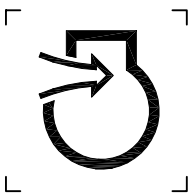
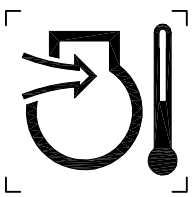
No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
12.1		Engine start	To indicate engine start control.	ISO 7000-1387
12.2		Engine start aid, gas injection	To indicate the control to activate gas injection for starting (low temperature start aid).	ISO 7000-1547
12.3		Electrical preheat for diesel engines	To indicate the control to activate electrical preheat for diesel engines (low temperature start aid).	ISO 7000-1704
12.4		Engine failure/malfunction	To indicate a possible failure or malfunction of the engine.	ISO 7000-1371
12.5		Engine stop	To indicate the engine stop control. To indicate that the engine has stopped or should be stopped.	ISO 7000-1388

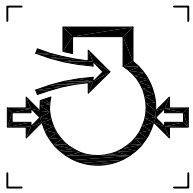
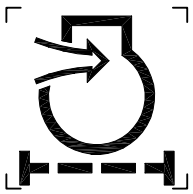
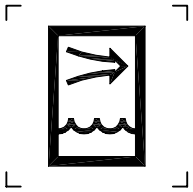
13 Engine operation (fuel)

No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
13.1		Fuel temperature	To indicate fuel temperature.	ISO 7000-1394

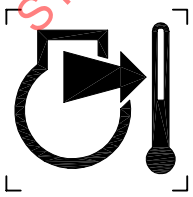
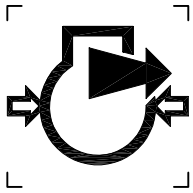
No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
13.2		Fuel pressure	To indicate fuel pressure.	ISO 7000-1392
13.3		Fuel level	To indicate fuel level.	ISO 7000-1551
13.4		Fuel filter	To indicate the fuel filter or filter condition.	ISO 7000-1393
13.5		Fuel shut-off	To indicate the control to shut off the fuel supply. (Not to be used as engine stop symbol.)	ISO 7000-1395
13.6		Fuel system malfunction	To indicate a possible fuel system malfunction.	ISO 7000-1391

14 Engine operation (charge air)

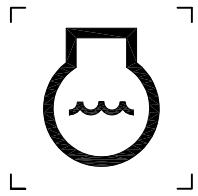
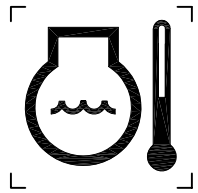
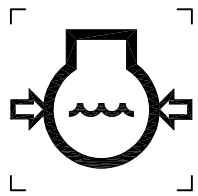
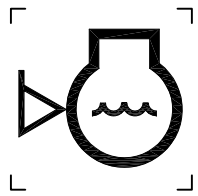
No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
14.1		Engine intake air	To indicate engine intake air.	ISO 7000-1381
14.2		Engine intake air temperature	To indicate engine intake air temperature.	ISO 7000-1383

No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
14.3		Engine intake air pressure	To indicate engine intake air pressure.	ISO 7000-1382
14.4		Engine intake air filter	To indicate the engine intake air filter or filter condition.	ISO 7000-1170
14.5		Air-cooled charge air cooler	To signify functions associated with charge air coolers. Upper symbol is medium being cooled; lower symbol is cooling medium.	ISO 7000-1544
14.6		Fresh-water-cooled charge air cooler	To signify functions associated with charge air coolers. Upper symbol is medium being cooled; lower symbol is cooling medium.	ISO 7000-1545

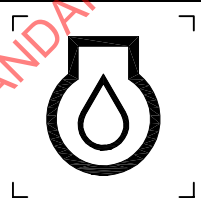
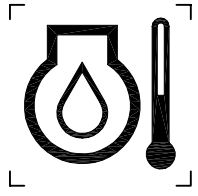
15 Engine operation (exhaust gas)

No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
15.1		Engine exhaust gas	To indicate engine exhaust gas.	ISO 7000-1384
15.2		Engine exhaust gas temperature	To indicate engine exhaust gas temperature.	ISO 7000-1386
15.3		Engine exhaust gas pressure	To indicate engine exhaust gas pressure.	ISO 7000-1385

16 Engine operation (liquid coolant)

No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
16.1		Engine coolant	To indicate liquid engine coolant. To identify the liquid engine coolant fill.	ISO 7000-1377
16.2		Engine (coolant) water jacket temperature	To indicate the liquid engine (coolant) water jacket temperature.	ISO 7000-1380
16.3		Engine coolant pressure	To indicate the liquid engine coolant pressure.	ISO 7000-1379
16.4		Engine coolant level	To indicate engine coolant level.	ISO 7000-1378

17 Engine operation (engine lubricating oil)

No.	Symbol form/shape	Title	Function/application	ISO/IEC registration number
17.1		Engine oil	To indicate engine oil. To identify the engine oil fill. NOTE When it is necessary to indicate oil type or classification, that indication should appear directly below the oil symbol; e.g. for ISO-L-ESF the letters SF should be added.	ISO 7000-1372
17.2		Engine oil temperature	To indicate engine oil temperature.	ISO 7000-1375