

B63C

Launching, hauling-out, or dry-docking of vessels; Life-saving in water; Equipment for dwelling or working under water; Means for salvaging or searching for underwater objects (floating nets, floating slipways, or the like for recovering aircraft from the water B63B35/52)

Definition statement

This subclass/group covers:

Launching, hauling-out, or dry-docking of vessels and related equipment:

Dry-docking of vessels or flying-boats

Launching or hauling-out by land-borne slipways; Slipways

Equipment usable both on slipways and in dry docks

Equipment forming part of or attachable to vessels facilitating transport over land

Storing of vessels on land otherwise than by dry-docking

Salvaging of disabled, stranded, or sunken vessels; Salvaging of vessel parts or furnishings, e.g. of safes; salvaging of other underwater objects

Life-saving in water

Equipment for dwelling or working underwater; Means for searching for underwater objects

Dwelling and working under water:

Diving equipment;

Diving bells and the like;

Remotely controlled underwater vehicles;

Underwater tools;

Arrangements on vessels for viewing under water.

Relationship between large subject matter areas

- [B63C](#) is the general home of equipment, methods and devices for moving ships or other waterborne vessels from a floating to a non-floating condition and vice versa, and of related equipment, of diving and underwater dwelling and working, of life-saving in water, of salvaging of distressed or wrecked and of lifting of sunken vessels.

- Whilst devices, installations, and methods for dry-docking of waterborne vessels or hauling-out and launching of the same using slipways, as well as equipment usable both on slipways and in dry-docks are classified in [B63C](#), subclass [B63B](#) covers methods of designing, building, converting or repairing of vessels.
- Whilst equipment forming part of or attachable to vessels facilitating transport over land are classified in [B63C](#), subclass [A45F](#) provides for harnesses for carrying small boats, and subclass [B60P](#) is the home of vehicles for carrying boats.
- [B63C](#) covers equipment, methods and devices for saving people under distress in water, for salvaging disabled or stranded floating structures, and for lifting sunken vessels, yet onboard safety equipment and handling of lifeboats is classified in [B63B](#). [B63B](#) is further the home of inflatable vessels in general and of ship-borne towing and pushing equipment, as well as of tugboats. [B63B](#) provides further for arrangement of ship-based loading and unloading equipment, and for vessels for special purposes. Life-saving in general is classified in [A62B](#). Outwear and protective garments in general, e.g. with buoyancy aids, are classified in [A41D](#).
- Whilst equipment for dwelling and working under water, such as diving equipment, diving bells and the like, underwater vehicles remotely controlled by umbilicals, underwater tools, and arrangements on vessels for viewing under water are classified in [B63C](#), subclass [B63G](#) covers submarines and other autonomous underwater vehicle. Respiratory apparatus in general are covered by [A62B](#), while respiratory apparatus for medical purposes are found in [A61M](#). Swimming aids and related equipment is classified in [A63B](#).

References relevant to classification in this subclass

This subclass/group does not cover:

Externally attached cofferdams or the like	B63B 17/0018
Nets, slipways, or the like for recovering aircraft from the water	B63B 35/52

Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices, apparatus or methods for life-saving in general	A62B
Vehicles in general for transporting	B60P

boats or the like	
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Special rules of classification within this subclass

In this subclass, three different Indexing Schemes are used:

- The first Indexing Scheme follows the EC scheme with an identical wording and scope as the corresponding EC scheme. This first Indexing Scheme is used for indexing additional information, thus non-trivial technical information which does not in itself represent an addition to the state-of-the-art, but might constitute useful information for the searcher. The use of this first Indexing Scheme is non-obligatory.
- The second Indexing Scheme represents a further sub-division of the EC scheme. The symbols of this second Indexing Scheme are hierarchically arranged under, and are in their scope limited by the scope of the respective symbols of the first Indexing Scheme or EC scheme to which they are linked. This second Indexing Scheme is used for indexing both, invention information and additional information. The use of this second Indexing Scheme is obligatory for invention information.
- The third Indexing Scheme is an Indexing Scheme under the subclass [B63B](#) which is used in all subclasses under the class B63 "Ships or other waterborne vessels; Related equipment". This third Indexing Scheme is used for indexing information related to the invention information which is not limited to the scope of one of the main-groups in the class B63. The use of this third Indexing Scheme is obligatory for invention-related information.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Dry-docking	Bringing a vessel from a floating to a non-floating condition by either placing the vessel in a closed basin by pumping out the water in the basin, or by lifting using buoyancy forces on the supporting structure.
Dwelling	A place of residence; a habitation
Hauling-out	Pulling, drawing or dragging a vessel out of the water.

Launching	Causing a vessel to move or slide from the land, or the stocks, into the water; setting afloat; lowering a boat into the water.
Salvaging	Saving a ship or its cargo from wreck, capture, stranding or the like.
Slipway	A slip, i.e. an inclined plane, sloping gradually down to the water, on which ships or other vessels are built or repaired.

Synonyms and Keywords

In patent documents the following abbreviations are often used:

ROV	Remotely Operated (underwater) Vehicle, i.e. a self-propelled unmanned (underwater) vehicle being connected to a base, e.g. by an umbilical or a control cable
ROUV	Remotely Operated Underwater Vehicle, i.e. a self-propelled unmanned underwater vehicle being connected to a base, e.g. by an umbilical or a control cable

In patent documents the following expressions/words "docking" and "dry-docking" are often used as synonyms.

In patent documents the expression/word "docking" is often used with either the meaning "mooring a vessel e.g. to a quay" or with the meaning "connecting a vehicle to a base by means of connector device, e.g. for energy or data transfer".

In patent documents the expression/word "launching" is often used with the meaning " sending off (a rocket, missile, torpedo, depth charge, spacecraft, or the like, or an astronaut) on its (or his) course".

B63C 1/00

Dry-docking of vessels or flying-boats (storing of vessels on

land otherwise than by dry-docking B63C15/00; mooring of vessels B63B21/00; hydraulic-engineering aspects E02B)

Definition statement

This subclass/group covers:

Methods, devices, equipment and installations for dry-docking of vessels of floating structures, i.e. for bringing them from a floating to a non-floating condition by making use of dry-docks or graving docks or of floating dry-docks.

Relationship between large subject matter areas

Whilst [B63C 1/00](#) covers methods and means for dry-docking, subclass [B63B](#) provides for arrangements or devices specially adapted for facilitating access to underwater elements.

Whilst [B63C 1/00](#) provides for dry docks as such, subclass [E02B](#) covers the hydraulic-engineering aspects of dry docks, and subclass [E02C](#) covers sluices or locks.

Floating dry-docks are found in [B63C 1/00](#), whereas externally attachable cofferdams, and ship transporters with adjustable draught are provided for in [B63B](#).

References relevant to classification in this main group

This subclass/group does not cover:

Externally attached cofferdams or the like	B63B 17/0018
Vessels or like floating structures with adjustable draught adapted for transporting marine vessels	B63B 35/42
Storing of vessels on land otherwise than by dry-docking	B63C 15/00
Hydraulic-engineering aspects of dry-docks	E02B

Informative references

Attention is drawn to the following places, which may be of interest for search:

Mooring of vessels	B63B 21/00
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Locks	E02C 1/00
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Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Cofferdam	A watertight structure fixed to a ship's hull, for making repairs below the water-line.
Dry dock	Basin which can be closed off from surrounding waters by means of a dock gate, and which is provided with water level control pumps for bringing a vessel inside the basin from a floating to a non-floating condition and vice versa.
Dock	A device for bringing a vessel from a floating to a non-floating condition and vice versa.
Floating dry-dock	A semi-submersible platform with a ballasting and de-ballasting installation for lifting a vessel from a floating to a non-floating condition and vice versa
Flying-boat	A marine airplane in which the fuselage consists of a hull that provides buoyancy in the water, and which is designed for landing and taking-off from water.
Lock	A portion of a channel on a canal or river shut off above and below by folding gates provided with sluices to let the water out or in, and thus raise or lower boats from one water level to another.
Submarine	A warship or civilian vessel adapted for long term operation underwater.

Synonyms and Keywords

In patent documents the expression/word "graving dock" is often used instead of "dry dock" which is used in the classification scheme of this group.

In patent documents the expression/word "dock" is often used with either the meaning "mooring place for a vessel e.g. on a quay", or with the meaning "harbour basin which can be closed-off from tidal water level fluctuations".

In patent documents the expression/word "docking" is often used with either the meaning "mooring a vessel e.g. to a quay", or with the meaning "connecting a vehicle to a base by means of connector device, e.g. for energy or data transfer".

In patent documents the expression/word "lock" is often used with the meaning of "a device operated by a key, combination, or keycard, and used, as on a door, for holding, closing, or securing".

B63C 3/00

Launching or hauling-out by land-borne slipways; Slipways (ship-borne guides for handling lifeboats or the like B63B23/30; cranes winches, or the like B66; ship lifting for adapting to different water levels E02C)

Definition statement

This subclass/group covers:

Methods, devices and installations for launching vessels or floating structures, or for hauling-out of the same using land-borne slipways, i.e. inclined surfaces leading from land to the water, e.g. by imposing a longitudinal or lateral movement of the vessel.

Slipways a such.

Relationship between large subject matter areas

Whilst [B63C 3/00](#) is the home land-born slipways and related equipment, subclass [B63B](#) provides for ship-borne guides for handling lifeboats and the like, and subclass [E02C](#) provides for ship lifting for adaption to different water levels.

While means and methods for launching vessels by vertical movement, e.g. using a crane, are classified in [B63C 3/00](#), cranes in general are found in [B66C](#), and winches and the like in general in [B66D](#).

References relevant to classification in this group

This subclass/group does not cover:

Ship-borne devices for guiding lifeboats or the like to the water surface.	B63B 23/30
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Vehicles in general for transporting boats or the like	B60P
Devices for projecting or releasing lifeboats or the like for free fall.	B63B 23/28
Cranes in general; Load-engaging elements of devices for cranes, capstans, winches, or tackles in general	B66C
Capstans, winches, tackles, e.g. pulley blocks, or hoists in general	B66D
Hoisting, lifting, hauling or pushing, not otherwise provided for	B66F
Ship-lifting devices or mechanisms	E02C

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Cradle	A framework on which a ship rests during construction or repairs, and on which she slides at launching; a framework or carriage in which a vessel lies on a slipway.
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B63C 5/00

Equipment usable both on slipways and in dry docks

Definition statement

This subclass/group covers:

Stagings, scaffolding, shores or struts specially adapted for use on slipways and in dry docks.

Bilge blocks and keel blocks.

Relationship between large subject matter areas

[B63C 5/00](#) is the home of equipment peculiar to operations in dry docks and on slipways, such as blocks for supporting the keel or the bilge of the ship or stagings, scaffolding, shores and struts specially adapted for works in dry docks, shipyards or on slipways, whereas scaffolding in general is classified in [E04G](#).

Informative references

Attention is drawn to the following places, which may be of interest for search:

Scaffolding in general	E04E
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Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Bilge block	One of the short pieces of timber arranged on either side of the keel on which the substantially horizontal part of the bottom of a vessel rests in building or in a dry dock
Keel block	One of the short pieces of timber on which the keel of a vessel rests in building or in a dry dock
Scaffolding	A temporary framework of platforms and poles constructed to provide accommodation for workmen and their materials during building, repairing, or inspection of a vessel.
Shore	A piece of timber or iron set obliquely against the side of a ship e.g. in dock, as a support when it is in danger of falling or when undergoing alteration or repair.

Staging	A temporary platform or structure of posts and boards for support; scaffolding.
Strut	A bar, rod, or built-up member, of wood, iron, etc., designed to resist pressure or thrust in a framework.

Synonyms and Keywords

In patent documents the expression/word "boatswain's chair" or "bosun's chair" is often used with the meaning "a seat consisting of a board suspended from one or more ropes, which is used while working aloft or over the side of a ship".

B63C 7/00

Salvaging of disabled, stranded, or sunken vessels; Salvaging of vessel parts or furnishings, e.g. of safes; salvaging of other underwater objects (means for searching for underwater objects B63C11/48)

Definition statement

This subclass/group covers:

Methods and devices for saving a ship, parts of it or its cargo from wreck, capture, stranding or the like, including emptying the content of sunken or disabled vessels, e.g. oil from sunken tankers.

Methods and devices righting capsized vessels or for lifting sunken ships or the like, or other underwater objects to the water surface.

Means for indicating the location of underwater objects.

Methods and means for refloating stranded vessels.

Floatable safes.

Relationship between large subject matter areas

[B63C 7/00](#) is the home of methods for salvaging disabled, wrecked or sunken vessels or parts or furnishings of such vessels, as well as of other underwater objects, whereas main group [B63C 11/00](#) provides for methods and devices for searching underwater objects, and for means on floating structures from viewing under water, subclass [E04F](#) provides for dredgers for cleaning water courses and floating supports for such dredgers, and subclass [E05G](#) provides

for safes in general.

While [B63C 7/00](#) provides for emptying the content of sunken vessels, e.g. of oil tankers, subclass [B63B](#) provides for ships adapted for collecting pollution, e.g. spilled oil, from open water, and for ship-based arrangements of equipment for loading and unloading of cargo, e.g. using pipe-lines, and subclass [E02B](#) provides for methods and apparatus for cleaning or keeping clear the surface of open water, and subclass [E21B](#) provides for methods and devices for collecting oil or the like from a submerged leakage of oil wells.

While methods and means for righting capsized vessels are classified in [B63C 7/00](#), self-righting life boats, life-rafts and the like are classified in [B63C 9/00](#).

While [B63C 7/00](#) provides for means for indicating the location of underwater objects, e.g. sunken vessels, main group [B63C 11/00](#) provides for means for signalling the presence of divers

References relevant to classification in this main group

This subclass/group does not cover:

Self-righting life-boats, life rafts or the like	B63C 9/02
Cable grapnels with grabs	B63C 11/50
Collecting oil or the like from a submerged leakage	E21B 43/0122

Informative references

Attention is drawn to the following places, which may be of interest for search:

Buoys in general	B63B 22/00
Some documents concerning the emptying of sunken vessels (reorganisation is pending)	B63B 27/24
Vessels or like floating structures specially adapted for collecting pollution from open water	B63B 35/32
Means for signalling the presence of divers	B63C 11/26
Means for searching for underwater objects	B63C 11/48

Cleaning or keeping clear the surface of open water; Apparatus therefor	E02B 15/04
Dredgers for cleaning water courses	E02F 5/28
Floating substructures a supports for dredgers	E02F 9/06
Safes in general	E05G

Special rules of classification within this group

In this group the following indexing schemes apply:

Signalling devices: [B63B 2201/00](#)

Tether: [B63B 2205/00](#)

Buoyancy or ballast means: [B63B 2207/00](#)

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Grab	A mechanical device for gripping an object.
Grapple	A small anchor with three or more flukes, used for anchoring a small boat, dragging the bottom for objects, or grasping and holding fast to something.
Hauling	The process of pulling or drawing with violence.
Pontoon	A stationary floating structure, typically used for support purposes.

B63C 9/00

Life-saving in water (life-saving in general A62B; arrangement

or adaptation of signalling or lighting devices for ships, other waterborne vessels or for equipment for shipping B63B45/00; rescue equipment specially adapted for submarine personnel B63G8/40)

Definition statement

This subclass/group covers:

Methods, apparatus and equipment for life-saving in water.

Alarm devices for persons fallen into the water, e.g. including means for controlling or manoeuvring a boat.

Lifeboats, life-rafts and the like.

Life-buoys, life-belts, or other life-saving personal flotation devices worn by or attached to people under distress in water, and related equipment.

Lines to be thrown to people under distress in water, and related equipment.

Rescue nets.

Vessel parts or furnishings specially adapted to life-saving in water.

Life-saving equipment for use in ice-infested waters.

Relationship between large subject matter areas

Whilst main group [B63C 9/00](#) is the general home for methods, apparatus and equipment for life-saving in water, subclass [A62B](#) provides for life-saving methods and equipment in general, subclass [B63B](#) covers boats in general, and main group [B63G 8/00](#) provides for equipment for rescuing personnel of submarines.

Whilst main group [B63C 9/00](#) covers devices for life-saving for people fallen overboard by activating an alarm or by controlling the propulsion or manoeuvring means of the vessel, as well as signalling means on life-buoys and the like, signalling or lighting devices for ships and for equipment for shipping are classified in subclass [B63B](#), and alarms for ensuring the safety of persons in general are found in subclass [G08B](#).

Whilst inflatable equipment for life-saving in water, like inflatable life-rafts or life vests are covered by [B63C 9/00](#), inflatable vessels are classified in subclass [B63B](#), and means and methods for connecting inflation valves to elastic bodies are found in subclass [B60C](#).

Whilst [B63C 9/00](#) covers life-belts, life-jackets, body-suits, survival suits and the like, non-sinkable garment for swimming and protective garments with buoyancy aids for aquatic activities are classified in subclass [A41D](#), and swimming aids are classified in [A63B](#).

Whilst [B63C 9/00](#) covers life-buoys and the like personal flotation devices attachable to body members of people under distress in water, sub-class [A63B](#) provides for swimming aids held by the user or attachable to the user's head, waist or limbs.

Whilst [B63C 9/00](#) covers personal life-saving equipment with signalling means, arrangements and adaptations of signalling and lighting means of ships and other waterborne vessels are classified in [B63B 45/00](#).

Whilst [B63C 9/00](#) covers inflatable life-saving equipment with particular arrangements and control of inflating valves, main group [B60C 29/00](#) provides for connecting inflation valves to elastic bodies.

Whilst [B63C 9/00](#) provides for devices for launching life-buoys, inflatable life-rafts, or other floatable life-saving equipment, ship-borne equipment for handling lifeboats and the like is classified in [B63B 23/00](#).

While cast or life lines, attachments thereto and containers therefor are classified in [B63C 9/00](#), adaptations of areal cableways for shipboard use, e.g. with breeches-buoys, are classified in [B63B 27/18](#), guns for line throwing are classified in sub-class [F41F](#), and line-carrying missiles are provided for in sub-group [F42B 12/68](#).

References relevant to classification in this main group

This subclass/group does not cover:

Connection of valves to inflatable elastic bodies	B60C 29/00
Equipment on vessels for handling lifeboats and the like	B63B 23/00
Rescue equipment for personnel of underwater vessels	B63G 8/40
Guns for line throwing	F41F
Line-carrying missiles	F42B 12/68

Informative references

Attention is drawn to the following places, which may be of interest for search:

Outwear for bathing or protective garments for aquatic activities with buoyancy aids	A41D
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Devices, apparatus or methods for life-saving in general	A62B
Equipment for swimming,	A63B
Swimming aids	A63B 31/00
Teaching frames for swimming	A63B 69/14
Ships and other waterborne vessels; Equipment for shipping in general	B63B
Inflatable vessels in general	B63B 7/00
Ship borne equipment for handling lifeboats an the like	B63B 23/00
Arrangements of ship-based cableways, e.g. with breeches-buoys	B63B 27/18
Rafts in general	B63B 35/58
Arrangement or adaptation of signalling or lighting for ships or other waterborne vessels, or for equipment for shipping	B63B 45/00
Alarms responsive to the presence of persons in a body of water in general	G08B 21/08

Special rules of classification within this main group

In this group the following indexing schemes apply:

Signalling devices: [B63B 2201/00](#)

Communication means: [B63B 2203/00](#)

Buoyancy or ballast means: [B63B 2207/00](#)

Energy supply or activating means: [B63B 2209/00](#)

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the

meaning indicated:

Body suit	A personal flotation device for people under distress in water which covers the majority trunk of the user, and may also partially cover the user's limbs.
Immersion suit	A personal flotation device for people under distress in water which covers the majority of the whole body of the user, including the user's limbs and head, in particular for protection from hypothermia upon immersion in cold water.
Lifeboat	A small water craft, carried on board a ship and used to escape in an emergency.
Life-buoy	A personal flotation device, e.g. annual shaped, for people under distress in water.
Life-raft	A flat, buoyant structure, either rigid or inflatable, with or without weather protection roof, carried on board a ship and used to escape in an emergency.
Life jacket	A vest which forms a personal flotation device for people under distress in water.
Torso	A user's trunk, comprising schoulders
Rescue net	A net attached to the side of a rescuing vessel, which allows people under distress in water to climb on board.

Synonyms and Keywords

In patent documents the expression "life-vest" is often used instead of "life jacket" which is used in the classification scheme of this group.

In patent documents the expressions "immersion suit" and "life suit" are often

used instead of "survival suit" or "body suit" which is used in the classification scheme of this group.

In patent documents the expression/word "body suit" is often used with the meaning "garment or underwear covering the torso of a user".

B63C 9/08

Life-buoys, e.g. rings; Life-belts, jackets, suits, or the like ([N: non-sinkable swimsuits, drawers or trunks A41D7/001]; equipment for swimming A63B, e.g. swimming aids [N: other than life-buoys or life-belts] A63B31/00, [N: teaching frames for swimming, swimming boards A63B69/14])

Definition statement

This subclass/group covers:

Life-buoys, e.g. annular shaped life rings;

Life-belts, life-jackets or life-vests, body suits, immersion or survival suits, or the like personal flotation devices for people under distress in water.

Life-buoys and the attachable to a user's body member.

Personal flotation devices for people under distress in water with particular signalling means.

Relationship between large subject matter areas

While [B63C 9/08](#) is the home of flotation devices for people under distress in water which are worn by, attached to or hold by the user, non-sinkable swim-suits, drawers or trunks are classified in [A41D 7/001](#), protective garments for aquatic activities, like wet suits for surfers, e.g. with buoyancy aids are found in [A41D 13/012](#), swimming aids are classified in [A63B 31/00](#), and dry or wet diving suits are covered by [B63C 11/00](#).

While [B63C 9/08](#) is the home for a number of inflatable flotation devices for people under distress in water, connections of valves to inflatable elastic bodies are classified in [B60C 29/00](#).

References relevant to classification in this sub-group

This subclass/group does not cover:

This sub-group does not cover:

Connection of valves to inflatable elastic bodies	B60C 29/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Non-sinkable swim-suits, drawers or trunks	A41D 7/001
Protective garments for aquatic activities, e.g. with buoyancy aids	A41D 13/012
Swimming aids	A63B 31/00
Teaching frames for swimming; Swimming boards	A63B 69/14
Arrangement or adaptation of signalling or lighting devices for ships and other waterborne vessels, including life boats and life rafts	B63B 45/00
Diving suits and compensator vests for divers	B63C 11/00

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Life-buoy	A personal flotation device, e.g. annular shaped, for people under distress in water.
Life jacket	A vest which forms a personal flotation device for people under distress in water.

Synonyms and Keywords

In patent documents the following abbreviations are often used:

PFD	Personal Flotation Device
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In patent documents the expression/word "life vest" is often used instead of

"life jacket" which is used in the classification scheme of this group.

B63C 9/087

Body suits, i.e. substantially covering the user's body (diving suits B63C11/04, B63C11/10) [N: B63C9/081 takes precedence]

Definition statement

This subclass/group covers:

Body suits, i.e. buoyant suits which substantially cover the user's trunk, and which may also partially cover the user's limbs.

Immersion or survival suits, i.e. buoyant wet or dry suits which substantially cover the whole user's body, including head and limbs.

Relationship between large subject matter areas

While [B63C 9/087](#) is the home of personal floating garment for people under distress in water which substantially covers at least the whole user's trunk, and may cover also the user's limbs and head, as in survival suits, sub-group [A41D 13/012](#) provides for protective garment for aquatic activities, e.g. comprising buoyancy aids, while resilient wet or dry diving suits are classified in [B63C 11/04](#), and rigid diving suits are found in [B63C 11/10](#).

While life-saving body suits and immersion suits for people under distress in water in general are found in [B63C 9/087](#), such suits are classified in [B63C 9/081](#), if they have compartments comprising elements which are filled with gas by deployment, e.g. sponge-like elements.

While [B63C 9/087](#) is the home for life-saving body suits and immersion suits having inflatable gas-filled compartments, connections of valves to inflatable elastic bodies are classified in [B60C 29/00](#).

References relevant to classification in this sub-group

This subclass/group does not cover:

Connection of valves to inflatable elastic bodies	B60C 29/00
Life-saving body suits or immersion suits having compartments comprising elements which are filled with gas by deployment, e.g. sponge-like elements]	B63C 9/081

Informative references

Attention is drawn to the following places, which may be of interest for search:

Protective garments for aquatic activities, e.g. with buoyancy aids	A41D 13/012
Protective garment with automatically inflatable shock absorbing means	A41D 13/018
Resilient diving suits	B63C 11/04
Rigid diving suits	B63C 11/10

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Body	The totality of a human or animal trunk, head and limbs; a human or animal trunk.
Body suit	A personal flotation device for people under distress in water which covers the majority of the user's trunk, and may also partially cover the user's limbs.
Immersion suit	A survival suit for people under distress in water which covers the majority of the whole body of the user, including the user's limbs and head, in particular for protection from hypothermia upon immersion in cold water.

Synonyms and Keywords

In patent documents the expressions/words "survival suit" and "immersion survival suit" are often used instead of "immersion suit" which is used in the classification scheme of this group.

In patent documents the expression/word "body suit" or "body" is often used with the meaning " a tight-fitting garment, e.g. underwear, of stretchy material that covers the body from the shoulders to the thighs (and may have long

sleeves or legs reaching down to the ankles".

B63C 9/11

covering the torso, e.g. harnesses ([N: B63C9/081 takes precedence])

Definition statement

This subclass/group covers:

Life-jackets or life-vest, i.e. personal flotation devices for people under distress in water which substantially cover the upper trunk of the user.

Harnesses for securing life-vests to the user's trunk.

Relationship between large subject matter areas

While [B63C 9/11](#) is the home of vest-shaped personal flotation devices for people under distress in water, as well as of harnesses for the same, sub-group [B63C 11/08](#) provides for buoyancy compensator vests for divers, and sub-group [B63C 11/02](#) provides for harnesses for carrying air supply equipment for divers.

While life-jackets or life-vests for people under distress in water in general are found in [B63C 9/11](#), such vests are classified in [B63C 9/081](#), if they have compartments comprising elements which are filled with gas by deployment, e.g. sponge-like elements.

While [B63C 9/11](#) is the home for life-jackets, life-vests and the like having inflatable gas-filled compartments, connections of valves to inflatable elastic bodies are classified in [B60C 29/00](#).

References relevant to classification in this sub-group

This subclass/group does not cover:

Connection of valves to inflatable elastic bodies	B60C 29/00
Life-jackets having compartments comprising elements which are filled with gas by deployment, e.g. sponge-like elements]	B63C 9/081

Informative references

Attention is drawn to the following places, which may be of interest for search:

Harnesses for carrying air supply equipment for divers	B63C 11/02
Buoyancy compensator vests for divers	B63C 11/08

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Harness	An assembly of straps and the like for attaching a personal flotation device to the trunk of a user
Torso	The upper part of the trunk of a human or animal body, thus comprising shoulders, chest, back, waist.

Synonyms and Keywords

In patent documents the following words "body", "torso" and "trunk" are often used as synonyms.

In patent documents the expression "life-vest" is often used instead of "life-jacket" which is used in the classification scheme of this group.

In patent documents the expression/word "torso" is often used with the meaning "human or animal trunk, including shoulders, chest, back, waist, abdomen, pelvis and hips, but without head and limbs".

B63C 9/13

attachable to body member, e.g. arm, neck, head or waist ([N: B63C9/081 takes precedence])

Definition statement

This subclass/group covers:

Life-saving buoys or belts, e.g. inflatable, which are attachable to or around a single body member, e.g. to an arm, the neck, the head or the waist.

Relationship between large subject matter areas

While [B63C 9/13](#) is the home of personal flotation devices for people under distress in water which are adapted to be attached to a single user's body member, Non-sinkable swim-suits, drawers or trunks are classified in sub-group [A41D 7/001](#), and swimming aids e.g. held by, or attachable to, the hands, arms, feet or legs are found in [A63B 31/00](#).

While [B63C 9/11](#) is the home for life-buoys and the like being attachable to a user's body member and having inflatable gas-filled compartments, connections of valves to inflatable elastic bodies are classified in [B60C 29/00](#).

References relevant to classification in this sub-group

This subclass/group does not cover:

Connection of valves to inflatable elastic bodies	B60C 29/00
Life-saving buoys or belts having compartments comprising elements which are filled with gas by deployment, e.g. sponge-like elements]	B63C 9/081

Informative references

Attention is drawn to the following places, which may be of interest for search:

Non-sinkable swim-suits, drawers or trunks	A41D 7/001
Swimming aids, e.g. held by, or attachable to, the hands, arms, feet or legs	A63B 31/00

B63C 9/21

[N: Boats, rafts, buoys or the like, characterised by signalling means, e.g. lights, reflectors (B63C9/08 takes precedence)]

Definition statement

This subclass/group covers:

Life-boats, life-rafts, life-buoys or the like having particular signalling means, such as lights or reflectors.

Special rules of classification within this sub-group

Sub-group [B63C 9/21](#) is no longer used for classification. Documents in this sub-group are in the process of being reorganised to [B63B 45/00](#) and sub-groups and to [B63C 9/20](#).

B63C 11/00

Equipment for dwelling or working underwater; Means for searching for underwater objects (composition of chemical substances for use in breathing apparatus A62D9/00; swimming aids or equipment A63B31/00 to A63B35/00; submarines B63G8/00)

Definition statement

This subclass/group covers:

Equipment for dwelling or working underwater

Divers' equipment

Diving suits and buoyancy compensators

Diving masks

Air supply from the water surface

Air supply carried by the diver

Communication means

Ballast arrangements

Decompression arrangements

Exercise equipment for divers

Diving chambers or underwater vessels, e.g. unmanned, with mechanical link, e.g. cable, to a base, such as

Diving chambers of closed type, e.g. with entrance above water surface

Diving chambers of closed type with independent propulsion or direction control, e.g. wire guided remotely operated underwater vehicles

Diving bells, or the like

Divers' sleds, or the like

Means for searching for underwater objects

Tools specially adapted for working underwater

Relationship between large subject matter areas

While [B63C 11/00](#) is the home for divers' equipment such as diving suits, compensator vests, diving masks, breathing apparatus, communication means, ballast arrangements, decompression arrangements and exercise equipment for divers, protective suits for aqueous activities in general are found in [A41D 13/012](#), respiratory apparatus in general are classified in [A62B](#), weights worn on the user's body for exercising are found in [A63B 21/065](#); swimming aids or equipment are provided for in main groups [A63B 31/00](#) to [A63B 35/00](#), e.g. swimming goggles in [A63B 33/00](#), and life-saving body suits and immersion suits, as well as life-vests are classified in [B63C 9/00](#),

While [B63C 11/00](#) covers closed diving chambers, open diving chambers, such as diving bells, as well as remotely operated underwater vehicles, manipulators and chambers with manipulators in general are provided for in sub-class [B25J](#), cofferdams, externally attachable to an underwater surface, of a ship's hull are found in [B63B 17/0018](#), autonomously operating diving chambers or vessels without mechanical link to a base, such as submarines are classified in [B63G 8/00](#), caissons adapted to laying foundations are provided for in [E02D 23/00](#) to [E02D 27/00](#), torpedoes as such are found in [F31B 19/00](#), and controlling torpedoes by wire is classified in [F41G 7/32](#).

While [B63C 11/00](#) covers self-propelled or towed water-craft adapted for divers to ride on, e.g. astraddle, main-group [A63B 35/00](#) provides for muscle or motor driven propulsion devices fixed to the body of a swimmer or held by his hands.

While [B63C 11/00](#) is the home of means for searching underwater objects, e.g. by underwater windows, or by using grapnels, marine anchors are classified in [B63B 21/24](#), main-group [B63C 7/00](#) provides for indicating the location of sunken object or for salvaging the same, sub-group [B63G 8/38](#) provides for the arrangement of visual equipment on submarines, grapnels and the like used for offensive or defensive purposes are found in [F42B 30/14](#), locating objects by RADAR, SONAR and the like is classified in sub-class [G01S](#), and mountings of acoustic transducers in underwater equipment are classified in [G10K 11/006](#).

References relevant to classification in this main group

This subclass/group does not cover:

Composition of chemical substances for use in breathing apparatus	A62D 9/00
Submarines	B63G 8/00

Examples of places where the subject matter of this main group is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Swimming framework with driving mechanism operated by the swimmer or by a motor	A63B 35/00
Caissons adapted to laying foundations	E02D 23/00 - E02D 27/00
Torpedoes per se	F41B 19/00
Wire guided torpedoes	F41G 7/32

Informative references

Attention is drawn to the following places, which may be of interest for search:

Respiratory or breathing apparatus in general, component parts therefor	A62B 7/00 - A62B 9/00
Breathing masks or helmets in general	A62B 18/00
Devices for storing respiratory or breathing apparatus in general	A62B 25/00
Breathing apparatus for accidentally buried persons	A62B 33/00
User-manipulated weights worn on the user's body for exercising, e.g. for strengthening the user's muscles	A63B 21/065
Swimming aids or equipment, e.g. swimming helmets, swimming goggles	A63B 31/00 - A63B 35/00
Manipulators or chambers with manipulation devices	B25J
Externally attached cofferdams or the like	B63B 17/0018
Marine anchors	B63B 21/24
Grappnels for defensive or offensive use	F42B 30/14

Special rules of classification within this group

In this main group the following indexing schemes apply:

Communication means: [B63B 2203/00](#)

Tether: [B63B 2205/00](#)

Buoyancy or ballast means: [B63B 2207/00](#)

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

In this main group, the following terms (or expressions) are used with the meaning indicated:

Autonomous underwater vessel	An unmanned submarine vessel adapted for autonomous underwater operation.
Caisson	A large watertight case or chest used in laying foundations of bridges, etc., in deep water.
Cofferdam	A watertight structure externally fixed to a ship's hull, for making inspections or repairs below the water-line without dry-docking.
Divers' sled	A water-craft, e.g. self-propelled, adapted for divers to ride thereon.
Diving bell	A strong heavy vessel with the bottom open, in which persons may descend into deep water, respiration being sustained by the compressed air at the top, or by fresh air supplied by a forcing pump from above.
Diving chamber	An underwater habitation for personnel which may have a closable opening for divers to exit into the surrounding water body or to enter the chamber on return.

Diving mask	A watertight mask with one or more viewing panes and covering the user's eyes and nostrils.
Diving-suit	A protective garment for divers, wet or dry, covering the user's trunk.
Dwelling	A place of residence; a habitation.
Grapnel	A small anchor with usually four or five curved, pointed flukes, used for anchoring a small boat, dragging the bottom for objects, or grasping and holding fast to something.
Remotely operated underwater vessel	A remotely controlled underwater vessel, e.g. unmanned, with independent propulsion and direction control using an umbilical.
Submarine	A warship or civilian vessel adapted for long term operation underwater.
Swimming goggle	A water tight eye mask with one or more viewing panes which leaves the user's nostrils open.
Torpedo	A self-propelled submarine missile, autonomously operating or remotely controlled, e.g. by wire, usually cigar-shaped, carrying an explosive.

Synonyms and Keywords

In patent documents the following abbreviations are often used:

AUV	Autonomous Underwater Vehicle
ROV	Remotely Operated Vehicle
ROUV	Remotely Operated Underwater Vehicle
SCUBA	Self-Contained Underwater Breathing Apparatus

B63C 13/00

Equipment forming part of or attachable to vessels facilitating transport over land (amphibious craft, land vehicles convertible for use on water B60F; land vehicles for carrying boats B60P;[N: hand carts for transporting boats B62B;] harnesses attachable to vessels for personal carrying A45F)

Definition statement

This subclass/group covers:

Attachable equipment for facilitating transport of vessels over land, e.g. detachable wheels.

Equipment forming part of a vessel for facilitating its transport over land, e.g. retractable wheels.

Relationship between large subject matter areas

While [B63C 13/00](#) is the home of removable or permanent equipment adapted for facilitating the transport over land of waterborne vessels, subclass [A45F](#) provides for harnesses attachable to boats allowing the boat to be carried by a person, amphibious vehicles are classified in subclass [B60F](#), land vehicles adapted for carrying water craft are found in subclass [B60P](#), hand carts for transporting boats are classified in [B62B](#), sub-group [B63B 35/7946](#) provides for transporting arrangements on surfboards, and cradles for launching and hauling-out on slipways are found in [B63C 3/12](#).

References relevant to classification in this group

This subclass/group does not cover:

Harnesses specially adapted for carrying small boats	A45F 3/15
Amphibious vehicles, i.e. vehicles capable of travelling both on land and on water	B60F 3/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Vehicles adapted for carrying boats	B60P 3/10
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Supplementary fittings on vehicle exterior specially adapted for carrying sports gear	B60R 9/08
Transporting arrangements for surf-boards	B63B 35/7946
Launching or hauling-out by land-borne slipways using cradles	B63C 3/12
Hand propelled vehicles, e.g. hand carts	B62B

B63C 15/00

Storing of vessels on land otherwise than by dry-docking

Definition statement

This subclass/group covers:

Devices, arrangements and methods for storing waterborne vessels otherwise than by dry-docking.

Relationship between large subject matter areas

While [B63C 15/00](#) is the home of methods, apparatus, equipment and arrangements for storing ships or the like on land in general, main groups [B63C 1/00](#) to [B63C 5/00](#) provide for dry-docks and slipways for vessels and related methods and equipment, fasting or storing of boats on deck of ships is found in sub-group [B63B 23/62](#), storage means for surf-board are classified in sub-group [B63B 35/7946](#), and sub-class [B65G](#) provides for storing or storage devices in general.

References relevant to classification in this group

This subclass/group does not cover:

Stowing arrangements for surfboards	B63B 35/7946
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Fasting or storing of boats on deck of ships	B63B 23/62
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Dry-docking, launching, hauling-out of vessels and related equipment	B63C 1/00 - B63C 5/00
Storing or storage devices in general	B65G