

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B63 SHIPS OR OTHER WATERBORNE VESSELS; RELATED EQUIPMENT

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 [B63B 35/52](#))

NOTE

In this subclass, the indexing codes [B63B 2201/00](#) - [B63B 2241/00](#) are to be used for relevant technical information concerning particular or unusual use, materials, design, methods or means.

WARNINGS

1. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.
2. Groups [B63C 1/00](#) - [B63C 15/00](#) are incomplete pending reclassification of documents from groups [B63B 2701/00](#) - [B63B 2770/00](#).

All groups listed in this Warning should be considered in order to perform a complete search.

1/00	Dry-docking of vessels or flying-boats (storing of vessels on land otherwise than by dry-docking B63C 15/00 ; mooring of vessels B63B 21/00 ; hydraulic-engineering aspects E02B)	2005/025	. . {Stagings, or scaffolding, i.e. constructions providing temporary working platforms on slipways, in building or repair docks, or inside hulls}
1/02	. Floating docks ({externally attached cofferdams and the like B63B 17/0018 ; } ship transporters with adjustable draught B63B 35/42)	2005/027	. . . {Stages, platforms, or seats suspended adjacent ship hulls on cables, chains, or the like, e.g. boatswain's chairs}
1/04	. . self docking	5/04	. . Bilge or keel blocks
1/06	. . Arrangements of pumping or filling equipment for raising or lowering docks	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 B63C 11/48)
1/08	. Graving docks (locks E02C 1/00)	7/003	. {Righting capsized vessels, e.g. sailing vessels (self-righting life boats, life rafts or the like B63C 9/02)}
1/10	. Centring devices	7/006	. {Emptying the contents of sunken, stranded, or disabled vessels, e.g. by engaging the vessel; Underwater collecting of buoyant contents, such as liquid, particulate or gaseous contents, escaping from sunken vessels, e.g. using funnels, or tents for recovery of escaping hydrocarbons (Cleaning or keeping clear the surface of open water in general E02B 15/00)}
1/12	. Docks adapted for special vessels, e.g. submarines	7/02	. in which the lifting is done by hauling
3/00	Launching or hauling-out by landborne slipways; Slipways (ship-borne guides for handling lifeboats or the like B63B 23/30 ; cranes winches, or the like B66 ; ship lifting for adapting to different water levels E02C)	7/04	. . using pontoons or the like
3/02	. by longitudinal movement of vessel	7/06	. in which lifting action is generated in or adjacent to vessels or objects
3/04	. by sideways movement of vessel	7/08	. . using rigid floats
3/06	. by vertical movement of vessel, i.e. by crane	7/10	. . using inflatable floats external to vessels or objects
3/08	. Tracks on slipways	7/12	. . by bringing air or floating bodies or material into vessels or objects
3/10	. using releasing devices	2007/125	. . . {using buoyant masses, e.g. foams, or a large plurality of small buoyant objects}
3/12	. using cradles (vehicles in general for transporting boats or the like B60P)		
3/14	. using braking means		
5/00	Equipment usable both on slipways and in dry docks		
5/02	. Stagings; Scaffolding; Shores or struts		
2005/022	. . {Shores or struts, e.g. individual oblique support elements for stabilizing hulls in dry-docks}		

- 7/14 . . . using freezing for closing holes or for strengthening the vessel or the like
- 7/16 . . . Apparatus engaging vessels or objects
{(B63C 7/006 takes precedence)}
- 7/18 . . . using nets
- 7/20 . . . using grabs {(cable grapnels with grabs
B63C 11/50)}
- 7/22 . . . using electromagnets or suction devices
- 7/24 . . . Apparatus for passing chains or the like under vessels or objects
- 7/26 . . . Means for indicating the location of underwater objects, e.g. sunken vessels (means for searching for underwater objects B63C 11/48; buoys in general B63B 22/00)
- 7/28 . . . Refloating stranded vessels
- 7/30 . . . Floatable safes (safes in general E05G)
- 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 B63B 45/00; rescue equipment specially adapted for submarine personnel B63G 8/40)
- 9/0005 . . . {by means of alarm devices for persons falling into the water, e.g. by signalling, by controlling the propulsion or manoeuvring means of the boat (alarms responsive to presence of persons in a body of water in general G08B 21/08)}
- 9/0011 . . . {enabling persons in the water to control the propulsion or manoeuvring means of the boat}
- 2009/0017 . . . {characterised by making use of satellite radio beacon positioning systems, e.g. the Global Positioning System [GPS]}
- 2009/0023 . . . {Particular features common to inflatable life-saving equipment}
- 2009/0029 . . . {Inflation devices comprising automatic activation means, e.g. for puncturing gas-generating cartridges}
- 2009/0035 {activated by deployment of inflatable life-saving equipment}
- 2009/0041 {activated by presence of water}
- 2009/0047 {using electric means}
- 2009/0052 {by water pressure}
- 2009/0058 {using means soluble in water, or weakening when wet}
- 2009/0064 {Inflation devices using pyrotechnic means and comprising automatic activation}
- 2009/007 . . . {Inflation devices comprising manual activation means, e.g. for puncturing gas-generating cartridges}
- 2009/0076 . . . {Inflation devices making use of the Venturi-effect for enhancing the gas flow from the pressurized gas source by entraining ambient air, e.g. using eductor-jet pumps for decreasing inflation time}
- 2009/0082 . . . {Bladder restrictors, i.e. mechanical means, other than peripheral or circumferential means, for restricting expansion in inflated state of inflatable bladders or chambers, e.g. welded spots or lines, or internal braces for limiting thickness}
- 2009/0088 . . . {characterised by making use of shark deterrents, e.g. electric, acoustic, mechanical or chemical means for deterring sharks}
- 2009/0094 . . . {Equipment comprising means for providing users with victuals or drinks}
- 9/01 . . . Air-sea rescue devices, i.e. equipment carried by, and capable of being dropped from, an aircraft (inflatable vessels B63B 7/00; inflatable buoys B63B 22/22)
- 9/02 . . . Lifeboats, life-rafts or the like, specially adapted for life-saving (floatable furniture B63C 9/30; boats in general B63B; inflatable vessels B63B 7/00; equipment for handling lifeboats or the like B63B 23/00; rafts B63B 35/58)
- 2009/023 . . . {self-righting, i.e. returning into an upright position after upside down deployment, or capsizing}
- 2009/026 . . . {Covered lifeboats, or life-rafts comprising self-levelling compartments for occupants}
- 9/03 . . . enclosed
- 2009/035 {Enclosed lifeboats, or the like}
- 9/04 . . . Life-rafts
- 2009/042 {inflatable}
- 2009/044 {covered}
- 2009/046 {reversible, i.e. deployable in upright or upside down positions}
- 2009/048 {Reversible open life-rafts}
- 9/05 . . . Shark screens, e.g. buoyant means combined with means to surround or otherwise enclose the user (B63C 9/06 takes precedence)
- 9/06 . . . Floatable closed containers with accommodation for one or more persons inside (B63C 9/01 takes precedence)
- 9/065 . . . {for one person}
- 9/08 . . . Life-buoys, e.g. rings; Life-belts, jackets, suits, or the like ({non-sinkable swimsuits, drawers or trunks A41D 7/001} ; equipment for swimming A63B, e.g. swimming aids {other than life-buoys or life-belts} A63B 31/00, {teaching frames for swimming, swimming boards A63B 69/14})
- 9/081 . . . {having compartments comprising elements which are filled with gas by deployment, e.g. sponge-like elements}
- 9/082 . . . {Annular or U-shaped life-buoys intended to be thrown to persons}
- 2009/084 . . . {for animals}
- 2009/085 . . . {comprising ballast means, e.g. solid ballast}
- 9/087 . . . Body suits, i.e. substantially covering the user's body {Immersion suits, i.e. substantially completely covering the user} ({Professional, industrial, or sporting protective garments A41D 13/00 for aquatic activities, e.g. with buoyancy aids A41D 13/012} diving suits B63C 11/04, B63C 11/10 {B63C 9/081 takes precedence})
- 9/093 using solid buoyant material
- 9/105 having gas-filled compartments (connection of valves to inflatable elastic bodies B60C 29/00)
- 9/1055 {inflatable}
- 9/11 . . . covering the torso, e.g. harnesses {(B63C 9/081 takes precedence)}
- 9/115 using solid buoyant material
- 9/125 having gas-filled compartments (connection of valves to inflatable elastic bodies B60C 29/00)
- 9/1255 {inflatable}
- 9/13 . . . attachable to body member, e.g. arm, neck, head or waist {(B63C 9/081 takes precedence)}
- 2009/131 {specially adapted for being attachable to a single arm or wrist}

- 2009/133 . . . {specially adapted for being attachable to the user's head or neck, e.g. like a cap or collar}
- 9/135 . . . using solid buoyant material
- 9/15 . . . having gas-filled compartments ([connection of valves to inflatable elastic bodies B60C 29/00](#))
- 9/155 . . . {inflatable}
- 9/18 . . Inflatable equipment characterised by the gas-generating {or inflation} device
- 9/19 . . . Arrangements for puncturing gas-generating cartridges
- 9/20 . . characterised by signalling means, e.g. lights ([arrangement or adaptation of signalling or lighting devices for ships or other waterborne vessels B63B 45/00](#))
- 9/21 . {Boats, rafts, buoys or the like, characterised by signalling means, e.g. lights, reflectors ([B63C 9/08 takes precedence](#))}
- WARNING**
- Group [B63C 9/21](#) is no longer used for classification. Documents are in the process of being reorganised to [B63B 45/00](#) and subgroups, and to [B63C 9/20](#)
- 9/22 . Devices for holding or launching life-buoys, inflatable life-rafts, or other floatable life-saving equipment ([equipment for handling life-boats or the like B63B 23/00](#))
- 9/23 . . Containers for inflatable life-saving equipment
- 9/24 . {Arrangements of inflating valves or of controls thereof ([connecting inflating valves to elastic bodies B60C 29/00](#))}
- 9/26 . Cast or life lines; Attachments thereto; Containers therefor; {Rescue nets or the like} ([adaptations of aerial cableways to shipboard use B63B 27/18; guns for line throwing F41F; line-carrying missiles F42B 12/68](#))
- 2009/265 . . {Nets or sheet-like devices, e.g. for lifting persons on board or for facilitating climbing on board}
- 9/28 . Adaptations of vessel parts or furnishings to life-saving purposes
- 9/30 . . Floatable furniture
- 9/32 . Equipment adapted to use on ice
- 11/00 Equipment for dwelling or working underwater; Means for searching for underwater objects** ([composition of chemical substances for use in breathing apparatus A62D 9/00; swimming aids or equipment A63B 31/00 - A63B 35/00; submarines B63G 8/00](#))
- 2011/005 . {Underwater equipment specially adapted for use by animals, e.g. diving helmets for dogs}
- 11/02 . Divers' equipment
- 2011/021 . . {Diving computers, i.e. portable computers specially adapted for divers, e.g. wrist worn, watertight electronic devices for detecting or calculating scuba diving parameters}
- 2011/022 . . {for facilitating observation of objects in opaque liquids, e.g. in dirty, turbid or dark water}
- 2011/023 . . {Accessories for diving arranged or for use outside the water}
- 2011/024 . . . {Tank racks, i.e. racks or mountings for storing breathing air tanks, e.g. onboard boats}
- 2011/025 . . . {Transporting units specially adapted for transporting diver's equipment, such as breathing air tanks, diving suits, or the like}
- 2011/026 . . {Diving harnesses, or the like, e.g. for carrying breathing air tanks}
- 2011/027 . . {Shells for diving equipment, i.e. substantially rigid housings or covers, e.g. streamlined shells ([diving computer with shells B63C 2011/021, shells for containers for goods or personal belongings of the diver B63C 11/02](#))}
- 2011/028 . . {Devices for underwater towing of divers or divers' sleds}
- 11/04 . . Resilient suits
- 2011/043 . . . {Dry suits; Equipment therefor}
- 2011/046 . . . {Wet suits, or diving vests; Equipment therefor}
- 11/06 . . . with rigid helmet
- 11/08 . . . Control of air pressure within suit, e.g. for controlling buoyancy {; Buoyancy compensator vests, or the like}
- 2011/085 {Buoyancy compensator vests}
- 11/10 . . Rigid suits
- 11/12 . . Diving masks
- 2011/121 . . . {comprising integrated optical signalling means or displays for data or images}
- 2011/123 . . . {comprising integrated headlights, spotlights, or the like}
- 2011/125 . . . {comprising nose-clips, i.e. pinching devices for closing the user's nose, other than rubber blisters integral with flexible mask elements}
- 2011/126 . . . {Diving masks comprising periscopes, mirrors, or the like; Periscopes, mirrors, or the like specially adapted for use with diving masks}
- 2011/128 . . . {Straps, or the like for fastening diving masks; Accessories therefor, e.g. buckles}
- 11/14 . . . with forced air supply
- 11/16 . . . with air supply by suction from diver, e.g. snorkels
- 2011/165 {comprising two or more air ducts leading from the mouthpiece to the air inlet or outlet opening}
- 11/18 . . Air supply ([for diving masks B63C 11/14, B63C 11/16; respiratory apparatus in general A62B](#))
- 2011/182 . . . {comprising devices for discharge of exhalation air into ambient water, e.g. ducts to back of head}
- 11/184 . . . {Artificial gills}
- 11/186 . . . {Mouthpieces}
- 2011/188 . . . {comprising warning means for breathing gas run-out}
- 11/20 . . . from water surface
- 11/202 {with forced air supply ([B63C 11/14 takes precedence](#))}
- 11/205 {with air supply by suction from diver, e.g. snorkels ([B63C 11/16 takes precedence](#))}
- 11/207 {with hoses connected to a float}
- 11/22 . . . carried by diver
- 11/2209 {First-stage regulators ([B63C 11/2245 takes precedence](#))}
- 2011/2218 {comprising hollow piston valves, i.e. regulator valves with hollow stems connecting valve seat end in high pressure chamber to low pressure chamber at piston end}
- 11/2227 {Second-stage regulators ([B63C 11/2245 takes precedence](#))}

- 11/2236 {Functionally interdependent first/second-stage regulators ([B63C 11/2245](#) takes precedence)}
- 11/2245 {With provisions for connection to a buoyancy compensator}
- 2011/2254 {comprising means for prevention of ice formation, e.g. means for heating breathing gas in first or second stage regulators}
- 2011/2263 {using breathing gas stored in its liquid phase, e.g. cryogenic breathing gas}
- 2011/2272 {Pumps specially adapted for filling breathing air into tanks for compressed air, e.g. manual pumps}
- 2011/2281 {Devices for securing breathing gas tanks to diving harnesses, or back pieces of diving jackets, e.g. straps; Tensioning devices therefor}
- 2011/229 {comprising fluid actuated tensioners, e.g. pneumatic jack tensioners for straps}
- 11/24 in closed circulation
- 11/26 . . Communication means, {e.g. means for signalling the presence of divers} ([electric communication in general H04](#))
- 11/28 . . Heating, e.g. of divers' suits, of breathing air
- 11/30 . . Ballast {(weights worn on user's body for exercising [A63B 21/065](#))}
- 2011/303 . . . {integral with, or directly attached to buoyancy compensator vests or to spiders of diver's backpacks combined therewith}
- 2011/306 . . . {Attachment means for quick release of ballast}
- 11/32 . . Decompression arrangements; Exercise equipment
- 11/325 . . . {chambers used for it}
- 11/34 . . Diving chambers with mechanical link, e.g. cable, to a base ([manipulators B25J](#); {externally attached cofferdams and the like [B63B 17/0018](#)}; diving chambers without mechanical link to a base [B63G 8/00](#); caissons adapted to laying foundations [E02D 23/00](#) - [E02D 27/00](#))
- 11/36 . . of closed type
- 11/38 . . . with entrance above water surface
- 11/40 . . . adapted to specific work
- 11/42 . . . with independent propulsion or direction control
- 11/44 . . of open type, e.g. diving-bells
- 11/46 . . Divers' sleds or like craft, i.e. craft on which man in diving-suit rides
- 11/48 . . Means for searching for underwater objects ([means for indicating the location of sunken objects B63C 7/26](#); locating by use of the reflection or reradiation of radio or other waves [G01S](#) {; mountings of acoustic transducers in underwater equipment [G10K 11/006](#)})
- 11/49 . . Floating structures with underwater viewing devices, e.g. with windows {; Arrangements on floating structures of underwater viewing devices, e.g. on boats ([arrangement of visual equipment on submarines B63G 8/38](#))}
- 11/50 . . using grapnels
- 11/52 . . Tools specially adapted for working underwater, not otherwise provided for

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](#); {hand carts for transporting boats [B62B](#); } [harnesses attachable to vessels for personal carrying A45F](#))

15/00 **Storing of vessels on land otherwise than by dry-docking**