

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING (NOTES omitted)

TRANSPORTING

B63 SHIPS OR OTHER WATERBORNE VESSELS; RELATED EQUIPMENT

B63B SHIPS OR OTHER WATERBORNE VESSELS; EQUIPMENT FOR SHIPPING ({amphibious vehicles [B60F 3/00](#); } air-cushion vehicles [B60V](#); arrangements of vessel ventilation, heating, cooling or air conditioning [B63J 2/00](#))

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.

WARNING

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.

<p>1/00 Hydrodynamic or hydrostatic features of hulls or of hydrofoils (keels B63B 3/38; determining hydrodynamic or hydrostatic features B63B 9/00; hulls peculiar to submarines B63B 3/13; decreasing pitch, roll or like unwanted vessel movements by using foils or acting on ambient water B63B 39/06)</p>	<p>1/12 . . . the hulls being interconnected rigidly {B63B 1/107 takes precedence}</p> <p>1/121 {comprising two hulls (B63B 1/107 takes precedence)}</p> <p>2001/123 {interconnected by a plurality of beams, or the like members only}</p> <p>1/125 {comprising more than two hulls (B63B 1/107 takes precedence)}</p> <p>2001/126 {comprising more than three hulls}</p> <p>2001/128 {comprising underwater connectors between the hulls}</p> <p>1/14 . . . the hulls being interconnected resiliently {or having means for actively varying hull shape or configuration (collapsible, foldable, inflatable or like vessels B63B 7/00)}</p> <p>2001/145 {having means for actively varying hull shape or configuration}</p> <p>1/16 . deriving additional lift from hydrodynamic forces</p> <p>1/18 . . of hydroplane type</p> <p>2001/183 . . . {having non-floating planing surfaces, e.g. attached skis or plate-shaped bodies}</p> <p>2001/186 . . . {Sponsons; Arrangements thereof}</p> <p>1/20 . . . having more than one planing surface (B63B 1/22 takes precedence)</p> <p>2001/201 {divided by longitudinal chines}</p> <p>2001/202 {divided by transverse steps}</p> <p>2001/203 {arranged in semi-catamaran configuration}</p> <p>2001/204 {arranged on multiple hulls}</p> <p>2001/205 {the hulls being interconnected rigidly}</p> <p>2001/206 {comprising two hulls, e.g. catamarans}</p> <p>2001/207 {comprising more than two hulls}</p> <p>2001/208 {comprising three hulls, e.g. trimarans}</p> <p>2001/209 {the hulls being interconnected resiliently, or having means for actively varying hull shape or configuration}</p> <p>1/22 . . . with adjustable planing surfaces</p>
<p>2001/005 . {Deflectors for spray, e.g. for guiding spray generated at the bow of a planing vessel underneath the hull}</p> <p>1/02 . deriving lift mainly from water displacement (B63B 1/16 takes precedence)</p> <p>1/04 . . with single hull</p> <p>1/041 . . . {with disk-shaped hull}</p> <p>1/042 . . . {the underpart of which being partly provided with channels or the like, e.g. catamaran shaped}</p> <p>2001/044 . . . {with a small waterline area compared to total displacement, e.g. of semi-submersible type}</p> <p>2001/045 . . . {with means for actively varying hull shape or configuration, e.g. for varying hydrodynamic characteristics}</p> <p>1/047 . . . {with spherical hull or hull in the shape of a vertical ring (freely movable rolling hoops, e.g. gyro wheels for exercising A63B 19/02)}</p> <p>1/048 . . . {with hull extending principally vertically}</p> <p>1/06 . . . Shape of fore part</p> <p>1/063 {Bulbous bows}</p> <p>2001/066 {Substantially vertical stems}</p> <p>1/08 . . . Shape of aft part</p> <p>1/10 . . with multiple hulls</p> <p>2001/102 . . . {Proas, or similar twin-hull vessels with one main hull and one smaller hull or floater, interconnected by one or more outrigger beams or the like}</p> <p>1/105 . . . {comprising a cockpit surrounded and pivotally supported by at least three floats}</p> <p>1/107 . . . {Semi-submersibles; Small waterline area multiple hull vessels and the like, e.g. SWATH}</p>	

- 1/24 . . of hydrofoil type {[controlling attitude or depth of underwater vessels by hydrofoils or the like B63G 8/18](#)}
- 1/242 . . . {[Mounting, suspension of the foils B63B 1/30 takes precedence](#)}
- 1/244 . . . {[Safety systems, e.g. when striking an object](#)}
- 1/246 . . . {[Arrangements of propulsion elements \(propulsion elements in general B63H 5/00, propulsion by jets in general B63H 11/00\)](#)}
- 1/248 . . . {[Shape, hydrodynamic features, construction of the foil](#)}
- 1/26 . . . having more than one hydrofoil ([B63B 1/28 takes precedence](#))
- 1/28 . . . with movable hydrofoils
- 2001/281 {[movable about an axis substantially parallel to the flow direction](#)}
- 1/283 {[movable around a vertical axis, e.g. for steering](#)}
- 1/285 {[changing the angle of attack or the lift of the foil](#)}
- 1/286 {[using flaps](#)}
- 1/288 {[using gas exhaust through the foil](#)}
- 1/30 retracting or folding {([B63B 1/244 takes precedence](#))}
- 1/32 . Other means for varying the inherent hydrodynamic characteristics of hulls
- 1/322 . . {[using aerodynamic elements, e.g. aerofoils producing a lifting force \(flying boats B64C 35/00\)](#)}
- 2001/325 . . {[Interceptors, i.e. elongate blade-like members projecting from a surface into the fluid flow substantially perpendicular to the flow direction, and by a small amount compared to its own length](#)}
- 2001/327 . . {[using magneto-hydrodynamic forces](#)}
- 1/34 . . by reducing surface friction
- 2001/345 . . . {[by ejecting friction reducing solids or liquids, e.g. polymers](#)}
- 1/36 . . . using mechanical means
- 1/38 . . . using air bubbles or air layers {[gas filled volumes \(waterborne vessels travelling on air cushions B60V 3/06\)](#)}
- 2001/382 {[by making use of supercavitation, e.g. for underwater vehicles](#)}
- 2001/385 {[using exhaust gas](#)}
- 2001/387 {[using means for producing a film of air or air bubbles over at least a significant portion of the hull surface](#)}
- 1/40 . . by diminishing wave resistance
- 3/00** **Constructions of hulls (non-metallic hulls [B63B 5/00](#); designing, building, maintaining or repairing methods [B63B 9/00](#))**
- 3/02 . Hulls assembled from prefabricated sub-units
- 3/04 . . with permanently-connected sub-units
- 3/06 . . . the sub-units being substantially identical
- 3/08 . . with detachably-connected sub-units
- 2003/085 . . . {[Multiple hull vessels, e.g. catamarans, assembled from detachably-connected sub-units](#)}
- 3/09 . Hulls constructed of non-magnetic metal
- 3/10 . Armoured hulls
- 3/12 . Frameless hulls
- 3/13 . Hulls built to withstand hydrostatic pressure when fully submerged, e.g. submarine hulls
- 3/14 . Hull parts ([hull armour B63B 3/10](#))
- 3/142 . . {[Connections between the shell and deck](#)}
- 2003/145 . . {[Frameworks, i.e. load bearing assemblies of trusses and girders interconnected at nodal points](#)}
- 2003/147 . . {[Moon-pools, e.g. for offshore drilling vessels](#)}
- 3/16 . . Shells ([ports or closures therefor B63B 19/00](#))
- 3/18 . . . characterised by being formed predominantly of parts that may be developed into plane surfaces
- 3/185 {[comprising only flat panels](#)}
- 3/20 . . . of double type
- 3/22 . . . with corrugations
- 3/24 . . . Means for diminishing external ridges of protrusions
- 3/26 . . Frames
- 2003/265 . . . {[comprising open profiles, e.g. U- or gutter-shaped, and forming substantially closed channels together with the plate to which they are attached](#)}
- 3/28 . . . of transverse type; Stringers
- 3/30 Bilge knees; Beam knees
- 3/32 Web frames; Web beams
- 3/34 . . . of longitudinal type; Bulkhead connections
- 3/36 . . . Combined frame systems
- 3/38 . . Keels ([movable keels B63B 41/00](#))
- 2003/382 . . . {[adapted for housing energy accumulators, e.g. batteries](#)}
- 2003/385 . . . {[with means for controlling heeling or rolling motions, or lift, e.g. flaps, by changing geometry, or by ballast displacement](#)}
- 2003/387 . . . {[adapted for housing propulsion plant elements](#)}
- 3/40 . . Stern posts; Stern frames
- 3/42 . . Shaft brackets
- 2003/425 . . . {[having features not related to structural construction, e.g. hydrodynamic properties or bearings](#)}
- 3/44 . . Bilge keels ([stabilising aspect B63B 39/06](#))
- 3/46 . . Stems
- 3/48 . . Decks ([planking B63B 5/06](#))
- 2003/485 . . . {[movably connected to hull or superstructure](#)}
- 3/50 . . . of vaulted type
- 3/52 . . . Pillars; Deck girders
- 3/54 . . . Hatch openings
- 3/56 . . Bulkheads; Bulkhead reinforcements ([arrangements of watertight doors B63B 43/24](#))
- 3/58 . . . with flat plating
- 3/60 . . . with curved or corrugated plating
- 3/62 . . Double bottoms; Tank tops
- 3/64 . . . Keelsons
- 3/66 . . Gratings
- 3/68 . . Panellings; Linings, e.g. for insulating purposes
- 3/70 . . Reinforcements for carrying localised loads, e.g. propulsion plant, guns
- 5/00** **Hulls characterised by their construction of non-metallic material**
- 5/02 . made predominantly of wood
- 5/04 . . Carcasses
- 5/06 . . Decks; Shells

- 5/065 . . . {caulking decks (mortise chisels for wood [B25D 3/00](#))}
- 5/08 . . . with single-layer planking
- 5/10 . . . with multiple-layer planking
- 5/12 . made predominantly of wood with metal reinforcement, i.e. composite construction
- 5/14 . made predominantly of concrete, e.g. reinforced
- 5/16 . . monolithic
- 5/18 . . built-up from elements
- 5/20 . . . in combination with elements of other materials
- 5/22 . . with reinforcing members external to shell
- 5/24 . made predominantly of plastics {(surf boards [B63B 35/7909](#))}
- 2005/242 . . {made of a composite of plastics and other structural materials, e.g. wood or metal}
- 2005/245 . . . {made of a composite of plastics and metal}
- 2005/247 . . . {made of a composite of plastics and wood}
- 7/00 Collapsible, foldable, inflatable or like vessels (foldable pontoons [B63B 35/36](#))**
 - 2007/003 . {with foldable members}
 - 2007/006 . {comprising nestable elements}
 - 7/02 . comprising only rigid parts
 - 7/04 . . sectionalised
 - 7/06 . having parts of non-rigid material
 - 2007/065 . . {comprising flexible pockets for receiving removable floaters}
 - 7/08 . . inflatable
 - 7/082 . . . {having parts of rigid material}
 - 7/085 . . . {Accessories or mountings specially adapted therefor, e.g. seats, sailing kits, motor mountings}
 - 7/087 {Motor mountings, e.g. transom panels for outboard motors}
- 9/00 Methods of designing, building, maintaining, converting, refitting, repairing, or determining properties of vessels, not otherwise provided for (shuttering for building concrete vessels [E04G](#))**
 - 9/001 . {Methods of designing, or determining properties of vessels by means of analytical modelling, e.g. computational}
 - 9/002 . . {using fluid dynamics analysis, e.g. computational fluid dynamics}
 - 9/003 . . {using structure analysis, e.g. finite elements}
 - 2009/005 . {Methods for dismantling hulls, or elements of ships or other waterborne vessels, e.g. floating offshore structures}
 - 2009/006 . . {for dismantling hulls, or structural elements}
 - 2009/007 . . {for unshipping or dismantling equipment or non-structural elements, e.g. propellers, rudders or prime movers}
 - 2009/008 . {Methods for repairing hulls or structural elements of ships or other waterborne vessels, e.g. floating offshore structures}
 - 9/02 . using towing tanks or model basins for designing {(arrangements in or on ship testing tanks or water tunnels [G01M 10/00](#))}
 - 2009/025 . . {using ice model basins; using non-refrigerated towing tanks or model basins with floating ice covers simulated by other means, e.g. wax}
 - 9/04 . Rebuilding ships, e.g. increasing tonnage
 - 9/06 . Methods of building hulls
 - 9/062 . . {by folding (foldable vessels [B63B 7/00](#))}
- 9/065 . . {for floating offshore platforms (grounded platforms [E02B 17/00](#))}
- 2009/067 . . . {for assembling offshore structures, e.g. *in situ*, using buoyancy forces for supporting the structure itself, or part of it, e.g. using barges}
- 9/08 . Determining vessel properties with respect to stability or balance
- 11/00 Interior subdivision of hulls (bulkhead space construction [B63B 3/56](#))**
 - 11/02 . Arrangement of bulkheads, e.g. defining cargo spaces
 - 11/04 . Constructional features of bunkers, {e.g. structural fuel tanks,} or ballast tanks, e.g. with elastic walls ({tanks for fuel or the like not forming subdivisions of the hull [B63B 17/0027](#); } cleaning of tanks [B63B 57/00](#))
 - 11/06 . Propeller-shaft tunnels
- 13/00 Conduits for emptying or ballasting; Self-bailing equipment; Scuppers (draining means for hatches [B63B 19/26](#); centrifugal bilge-water separators [B04](#); {arrangements of installations for treating ballast water [B63J 4/002](#); } pipes in general [F16L](#))**
 - 2013/005 . {Sea chests}
 - 13/02 . Ports for passing water through vessels' sides {(jet propulsors with clogging prevention means [B63H 11/01](#))}
- 15/00 Superstructures {, deckhouses, wheelhouses or the like}; Arrangements or adaptations of masts {or spars, e.g. bowsprits} (loading or unloading equipment [B63B 27/00](#); masts and staying in general [E04H](#); sails, running rigging [B63H](#); {mounting ladders or the like on masts [B63B 29/205](#))**
 - 2015/0008 . {Bowsprits}
 - 2015/0016 . {Masts characterized by mast configuration or construction}
 - 2015/0025 . . {Bipodded masts, e.g. A-type masts}
 - 2015/0033 . . {Multipodded masts, e.g. tripod-type}
 - 2015/0041 . . {Telescoping masts}
 - 2015/005 . . {with means for varying mast position or orientation with respect to the hull}
 - 2015/0058 . . . {comprising active mast inclination means}
 - 2015/0066 . . . {Inclinable masts with passive righting means, e.g. counterbalancing means}
 - 2015/0075 . . . {with mast foot adapted for being moved, e.g. athwartship}
 - 15/0083 . {Masts for sailing ships or boats}
 - 2015/0091 . . {comprising means for silencing rope noise}
 - 15/02 . Staying of masts or of other superstructures
- 17/00 Vessels parts, details, or accessories, not otherwise provided for {(vehicle fittings for preventing or indicating unauthorised use or theft of vehicles in general [B60R 25/00](#); propeller guards, line cutters or other means for protecting propellers or rudders [B63H 5/165](#); protection of power legs of outboard propulsion units [B63H 20/36](#); locking devices for boats, surfboards or parts or accessories thereof [E05B 73/007](#))}**
 - 2017/0009 . {Methods or devices specially adapted for preventing theft, or unauthorized use of vessels, or parts or accessories thereof, other than by using locks}

- 17/0018 . {Arrangements or devices specially adapted for facilitating access to underwater elements, e.g. to propellers (retractable propellers [B63H 5/125](#); tilting outboard propulsion units [B63H 20/08](#)); Externally attached cofferdams or the like (caissons adapted to laying foundations [E02D 23/00](#) - [E02D 27/00](#))}
 - 17/0027 . {Tanks for fuel or the like (constructional features of bunkers [B63B 11/04](#)); Accessories therefor, e.g. tank filler caps (fuel tanks for vehicles in general [B60K 15/03](#); cargo tanks [B63B 25/08](#); cleaning of tanks [B63B 57/00](#); handling of liquids for use in power plants [B63H 21/38](#))}
 - 17/0036 . . {Arrangements for minimizing pollution by accidents (associated with cargo tanks [B63B 25/082](#))}
 - 2017/0045 . {Caps, hoods, or the like devices for protective purposes, not otherwise provided for}
 - 2017/0054 . {Rests or supports for movable ship-borne equipment}
 - 2017/0063 . . {Boom rests, i.e. props for main sail booms, derricks, or the like}
 - 2017/0072 . {Seaway compensators}
 - 17/0081 . {Vibration isolation or damping elements or arrangements, e.g. elastic support of deck-houses (mounting of propulsion plant or unit [B63H 21/30](#); vibration dampers, suppression of vibration in systems [F16F](#))}
 - 2017/009 . {Wave breakers, breakwaters, splashboards, or the like}
 - 17/02 . Awnings {, including rigid weather protection structures, e.g. sunroofs; Tarpaulins; Accessories for awnings or tarpaulins}
 - 17/023 . . {Hatchway tents, e.g. for weather protection of cargo during loading or unloading}
 - 2017/026 . . {Rigid awnings, or sunroofs}
 - 17/04 . Stanchions; Guard-rails {; Bulwarks or the like}
 - 2017/045 . . {Bulwarks, or the like}
 - 17/06 . Refuse discharge, e.g. for ash ({arrangements of installations for treating refuse or sludge, e.g. tank washing sludge [B63J 4/00](#); } removal of domestic or like refuse [B65F](#))
- 19/00 Arrangements or adaptations of ports, doors, windows, port-holes, or other openings or covers (scuppers [B63B 13/00](#); arrangements of watertight doors in bulkheads [B63B 43/24](#))**
- 2019/0007 . {Ship's windows}
 - 2019/0015 . . {Bull's eyes, or the like ship's windows}
 - 2019/0023 . . . {Pivotal bull's eyes with central pivoting axis}
 - 2019/003 . . . {Pivotal bull's eyes with peripheral hinge axis}
 - 2019/0038 . . {Ship's windows, other than bull's eyes}
 - 2019/0046 . . . {Fixed ship's windows, other than bull's eyes}
 - 2019/0053 . {Locking means for ports, doors, windows, covers, or the like, e.g. providing for watertight closure when locked}
 - 2019/0061 . . {comprising pivotally supported threaded locking bolts}
 - 2019/0069 . . {comprising movable positive fit locking members, e.g. swivelling locking clips, or dogs}
 - 2019/0076 . . . {comprising multiple positive fit locking members arranged for simultaneous locking action}
 - 2019/0084 {with mechanical drive for effecting simultaneous locking action}
- 2019/0092 . . {Fly screens, or the like protection devices against insects, e.g. for insertion into bull's eyes openings}
 - 19/02 . Clear-view screens; {Windshields (canopies connected to windshields [B63B 17/02](#))}
 - 19/04 . Air-catching equipment related to windows or port-holes (ventilation [B63J 2/00](#))
 - 19/06 . . readily detachable
 - 19/08 . Ports or like openings in vessels' sides {or at the vessels' bow or stern (forming ramps when open [B63B 27/143](#))}
 - 2019/083 . . {Bow ports, e.g. for ferries}
 - 2019/086 . . {Stern ports, e.g. for ferries or Ro-Ro-vessels}
 - 19/10 . . Coal ports
 - 19/12 . Hatches; Hatchways (hatch coamings [B63B 3/54](#))
 - 19/14 . . Hatch covers (opening devices in general [E05F](#))
 - 2019/145 . . . {with means for adjusting size, e.g. width}
 - 19/16 . . . with detachable boards
 - 19/18 . . . slidable
 - 2019/185 {with sliding bearings}
 - 19/19 . . . foldable
 - 19/197 actuated by fluid pressure
 - 19/203 actuated by cables or the like
 - 19/21 . . . of roll-up type
 - 19/22 . . Hatch beams
 - 19/24 . . Hatch fastenings, e.g. cleats
 - 2019/245 . . . {Loose or removable fastening members specially adapted for fastening hatch covers to coamings, sills, or the like}
 - 19/26 . . Gaskets; Draining means
 - 19/28 . . Other safety means
- 21/00 Tying-up; Shifting, towing, or pushing equipment; Anchoring** ({of buoys [B63B 22/04](#)}; dynamic anchoring [B63H 25/00](#); equipment for shipping on coasts, in harbours or on other fixed marine structures, e.g. for landing purposes, [E02B](#))
- WARNING**
- Group [B63H 21/00](#) is no longer used for classification of adaptations of ropes, hawsers, or the like, or parts thereof. Documents are in the process of being reorganised to [B63B 21/20](#)
- 2021/001 . {Mooring bars, yokes, or the like, e.g. comprising articulations on both ends}
 - 2021/002 . . {Yokes, or the like}
 - 2021/003 . {Mooring or anchoring equipment, not otherwise provided for}
 - 2021/004 . . {Quick release elements in mooring connections}
 - 2021/005 . . {Resilient passive elements to be placed in line with mooring or towing chains, or line connections, e.g. dampers or springs}
 - 2021/006 . . {Suction cups, or the like, e.g. for mooring, or for towing or pushing}
 - 2021/007 . . {Remotely controlled subsea assistance tools, or related methods for handling of anchors or mooring lines, e.g. using remotely operated underwater vehicles for connecting mooring lines to anchors}
 - 2021/008 . . {Load monitors}
 - 2021/009 . . {Drift monitors}
 - 21/02 . Magnetic mooring equipment
 - 21/04 . Fastening or guiding equipment for chains, ropes, hawsers, or the like {(means for fastening cables or ropes in general [F16G 11/00](#))}

- 21/045 . . {T-shaped cleats}
- 21/06 . . Bollards
- 21/08 . . Clamping devices (in general [F16B](#); {means for fastening cables or ropes to one another or to other objects in general [F16G 11/00](#)})
- 21/10 . . Fairleads
- 21/12 . . Rat guards
- 21/14 . . Hawse-holes; Hawse-pipes; Hawse-hole closures
- 21/16 . . using winches (winches *per se* [B66D](#))
- 21/18 . . Stoppers for anchor chains {(anchor capstans [B66D 1/72](#))}
- 21/20 . . Adaptations of chains, ropes, hawsers, or the like, or of parts thereof chains, ropes or hawsers in general, *see* the relevant subclasses, e.g. [F16G](#) {or [D07B](#)}
- 2021/203 . . {Mooring cables or ropes, hawsers, or the like; Adaptations thereof}
- 2021/206 . . {Weights attached to mooring lines or chains, or the like; Arrangements thereof}
- 21/22 . . Handling or lashing of anchors
- 2021/222 . . {Buoyancy elements adapted or used for manipulating anchors, e.g. buoyancy elements built-in, or connected to the anchor, and used for lifting or up-righting the same}
- 2021/225 . . {Marker buoys for indicating position of an anchor, or for providing a line connection between the anchor and the water surface}
- 21/227 . . {Stowing the anchor inside the vessel by hauling-in through an aperture in the side walls, stern or bottom}
- 21/24 . . Anchors
- 21/243 . . {foldable or capable of being disassembled}
- 2021/246 . . {comprising elements yielding at a predetermined load, e.g. shear bolts}
- 21/26 . . securing to bed
- 2021/262 . . . {by drag embedment}
- 2021/265 . . . {by gravity embedment, e.g. by dropping a pile-type anchor from a certain height}
- 2021/267 . . . {by penetration of anchor into the sea bed using water jets, e.g. by ground or sand fluidisation}
- 21/27 . . . by suction
- 21/28 . . . driven in by explosive charge
- 21/29 . . . by weight, e.g. flukeless weight anchors
- 21/30 . . rigid when in use {([B63B 21/28](#) takes precedence)}
- 21/32 . . . with one fluke
- 21/34 . . . with two or more flukes
- 21/36 foldable
- 21/38 . . pivoting when in use {([B63B 21/28](#) takes precedence)}
- 21/40 . . . with one fluke
- 21/42 of ploughshare type
- 21/44 . . . with two or more flukes
- 21/46 . . with variable {, e.g.} sliding, connection to the chain {, especially for facilitating the retrieval of the anchor}
- 21/48 . . Sea-anchors; Drogues
- 21/50 . . Anchoring arrangements {or methods} for special vessels, e.g. for floating drilling platforms or dredgers
- 2021/501 . . {by means of articulated towers, i.e. slender substantially vertically arranged structures articulated near the sea bed}
- 21/502 . . {by means of tension legs}
- 2021/504 . . . {comprising suppressors for vortex induced vibrations}
- 2021/505 . . {Methods for installation or mooring of floating offshore platforms on site}
- 21/507 . . {with mooring turrets}
- 21/508 . . . {connected to submerged buoy (mooring buoys *per se* [B63B 22/02](#))}
- 21/54 . . Boat-hooks or the like {, e.g. hooks detachably mounted to a pole}
- 21/56 . . Towing or pushing equipment (tugs [B63B 35/66](#) {; towing devices for waterskis or watersledges [B63B 35/815](#)})
- 2021/563 . . {Pushing equipment}
- 2021/566 . . {comprising running ropes or chains, e.g. endless, driven by ground-borne equipment}
- 21/58 . . Adaptations of hooks for towing; Towing-hook mountings (hooks in general [F16B](#))
- 21/60 . . . Quick releases
- 21/62 . . characterised by moving of more than one vessel (rigid interconnections between pontoons [B63B 35/38](#))
- 21/64 . . Equipment for towing or pushing vessels by vehicles or beings moving forward on ground-based paths along water way (boat-hooks or the like [B63B 21/54](#); shore- or ground-based equipment *per se*, e.g. vehicles, rails, *see* the relevant classes)
- 21/66 . . Equipment specially adapted for towing underwater objects or vessels, e.g. fairings for tow-cables ({paravanes for dragging fishing nets [A01K 73/02](#); } salvaging underwater vessels or objects [B63C 7/00](#); towed underwater vessels [B63G 8/42](#))
- 21/663 . . . {Fairings}
- 2021/666 . . . {for intermittent towing}
- 22/00** **Buoys** ({floating decoys, e.g. for waterfowl [A01M 31/06](#); } means for indicating the location of underwater objects [B63C 7/26](#); life-buoys, e.g. rings [B63C 9/08](#); {mountings of acoustic transducer in underwater equipment, e.g. sonobuoys [G10K 11/006](#); electric cables supported on or from floats [H02G 9/12](#)})
- 22/003 . . {adapted for being launched from an aircraft or water vehicle;., e.g. with brakes deployed in the water}
- 2022/006 . . {specially adapted for measuring or watch purposes}
- 22/02 . . specially adapted for mooring a vessel
- 22/021 . . {and for transferring fluids, e.g. liquids (container type buoys having means to selectively release contents, not adapted for mooring a vessel [B63B 22/26](#))}
- 22/023 . . . {submerged when not in use (container type buoys submerged when not in use, not adapted for mooring a vessel [B63B 22/28](#); connected to turret [B63B 21/508](#))}
- 22/025 . . . {and comprising a restoring force in the mooring connection provided by means of weight, float or spring devices}
- 22/026 . . . {and with means to rotate the vessel around the anchored buoy (turrets [B63B 21/507](#))}
- 2022/028 . . {submerged, e.g. fitting into ship-borne counterpart with or without rotatable turret, or being releasably connected to moored vessel}

22/04	• {Fixations or other} anchoring arrangements	23/46	• • • in the boat
22/06	• • with means to cause the buoy to surface in response to a transmitted signal {(B63B 22/023 takes precedence)}	23/48	• • using winches for boat handling (winches per se B66D)
22/08	• • having means to release or urge to the surface a buoy on submergence thereof, e.g. to mark location of a sunken object	23/50	• • • with tensioning gear
22/10	• • • Water soluble or water weakened means, i.e. buoy released by buoy-to-object securing means being destroyed on contact with water	23/52	• • • with control of winches from boat
22/12	• • • the surfacing of the buoy being assisted by a gas released or generated on submergence of the buoy	23/54	• • with trimming equipment
22/14	• • • Buoy-to-object securing means responsive to hydrostatic pressure	23/56	• • • controlled from boat
22/16	• specially adapted for marking a navigational route (signalling or lighting devices B63B 45/00)	23/58	• • with tackle engaging or release gear
22/163	• • {comprising a bell or other audible signal}	23/60	• • Additional connections between boat and davits
22/166	• • {comprising a light}	23/62	• Fastening or storing of boats on deck
22/18	• having means to control attitude or position, e.g. reaction surfaces or tether	23/64	• • Lashings; Covers
22/20	• • Ballast means	23/66	• • Blocks; Chocks
22/22	• Inflatable buoys with gas generating means (B63B 22/12 takes precedence)	23/68	• • • for stacking boats
22/24	• container type, i.e. having provision for the storage of material	23/70	• Condition-responsive handling equipment, e.g. automatic release of boat from lowering tackle upon contact with water
22/26	• • having means to selectively release contents, e.g. swivel couplings ({ B63B 22/021 takes precedence ; } arrangements between ships and off-shore structures for loading or unloading, using pipe lines B63B 27/34 ; pipe joints or couplings, in general F16L)	25/00	Load-accommodating arrangements, e.g. stowing, trimming; Vessels characterised thereby (trimming otherwise than by cargo division, e.g. by use of ballast B63B 43/06, B63B 43/08; constructive aspects of cargo spaces B63B 11/00; hatches, hatchways B63B 19/12)
22/28	• • submerged when not in use {(B63B 22/023 takes precedence)}	25/002	• {for goods other than bulk goods (detachable decks B63B 25/18 ; palletised articles B63B 25/22 ; frozen goods B63B 25/26 ; deck loads B63B 25/28)}
23/00	Equipment for handling lifeboats or the like	25/004	• • {for containers (B63B 25/28 takes precedence)}
23/02	• Davits, i.e. devices having arms for lowering boats by cables or the like	25/006	• • {for floating containers, barges or other floating cargo (for transporting marine vessels B63B 35/40)}
23/04	• • with arms pivoting on substantially horizontal axes, e.g. gravity type	25/008	• • {for wheeled cargo (B63B 25/20 takes precedence)}
23/06	• • • with actual pivots	25/02	• for bulk goods
23/08	• • • the arms being articulated	2025/022	• • {comprising flexible receptacles for bulk cargo, e.g. bladders for liquid cargo inserted in tanks}
23/10	• • • with positive drive of the arms	2025/025	• • {Vessels adapted for particular combinations of bulk cargo}
23/12	• • • with simulated pivots	2025/027	• • • {Ore-bulk-oil carriers}
23/14	• • • using linkages	25/04	• • solid
23/16	• • • using guide tracks	25/06	• • • for cereals
23/18	• • with arms pivoting on substantially vertical axes	25/08	• • fluid {(constructional features of bunkers B63B 11/04 ; tanks for fuel or the like not forming bunkers B63B 17/0027)}
23/20	• • • Davits with single arms (cranes in general B66C)	25/082	• • • {Arrangements for minimizing pollution by accidents (associated with tanks for fuel or the like not forming bunkers B63B 17/0036)}
23/22	• • • Slings or the like therefor	2025/085	• • • {comprising separation membranes}
23/24	• • • Slewing equipment therefor	2025/087	• • • {comprising self-contained tanks installed in the ship structure as separate units}
23/26	• • with rectilinear translation of boat before lowering	25/10	• • • open to ambient air
23/28	• Devices for projecting or releasing boats for free fall	25/12	• • • closed
23/30	• Devices for guiding boats to water surface	25/14	• • • • pressurised
23/32	• • Rigid guides, e.g. having arms pivoted near waterline	25/16	• • • • heat-insulated (insulating panelling B63B 3/68 ; heating or cooling B63J)
23/34	• • Guiding means for lowering by cables, e.g. for listing ships	25/18	• Detachable decks
23/36	• • • Skid fenders	25/20	• • for motor vehicles or the like
23/38	• Transport of boats to davits or the like	25/22	• for palletised articles
23/40	• Use of lowering or hoisting gear	25/24	• Means for preventing unwanted cargo movement, e.g. dunnage
23/42	• • with braking equipment	2025/245	• • {of wheeled cargo, e.g. vehicle retainers}
23/44	• • • on the ship	25/26	• for frozen goods
		25/28	• for deck loads

2025/285	. . {Means for securing deck containers against unwanted movements}	2029/027	. . {Removable walls, e.g. for temporarily erecting cabin spaces in ship hold, or for subdividing living areas into smaller units; Fittings for removable wall panels}
27/00	Loading or unloading cargo or passengers (self-discharging barges or lighters B63B 35/30; shore-based B65G {elevators, escalators or moving walkways <i>per se</i> B66B; floating cranes B66C 23/52; loading or unloading devices <i>per se</i>, <i>see the relevant subclasses</i>, e.g. B65G, B66C, B67D})	29/04	. . Furniture peculiar to vessels (floatable furniture B63C 9/30)
27/02	. {with intermittent action}	2029/043	. . . {Seats; Arrangements thereof on vessels}
27/04	. . Ships' derricks, i.e. employing ships' masts (derricks in general B66C)	2029/046	. . . {Tables, e.g. foldable or stowable}
27/06	. . . {with slewing force exerted at pivoted end}	29/06	. . . Fastening to floors
27/08	. . using winches (winches <i>per se</i> B66D)	29/08	. . . Storm guards on tables, e.g. fiddles
27/10	. . using cranes (cranes <i>per se</i> B66C)	29/10	. . . Berths; Mounting ladders therefor
27/12	. . . of gantry type	29/12	. . . Self-levelling mountings
27/14	. . Ramps; Gangways or other outboard ladders (inboard ladders B63B 29/20 {; land-based bridges giving access to ships E01D 15/24 }); {Pilot lifts}	29/14	. . Closet or like flushing arrangements; Washing or bathing facilities peculiar to ships
2027/141	. . . {telescopically extendable}	2029/145	. . . {Collapsible or non-permanent privacy rooms, e.g. closets or changing rooms}
27/143	. . . {Ramps}	29/16	. . Soil water discharges (arrangements of installations for treating waste water or sewage B63J 4/006)
2027/145 {Inflatable ramps}	29/18	. . Arrangements or adaptations of swimming pools
27/146	. . . {Pilot ladders or similar outboard ladders, e.g. bathing ladders; Pilot lifts}	29/20	. . Arrangements or adaptations of ladders (mounting ladders for berths B63B 29/10)
2027/148 {Pilot lifts}	29/205	. . {on masts}
27/16	. . using lifts or hoists (elevators <i>per se</i> B66B {Pilot lifts B63B 27/14 })	29/22	. . Galleys
2027/165	. . . {Deployment or recovery of underwater vehicles using lifts or hoists}	35/00	Vessels or like floating structures adapted for special purposes (vessels characterised by load-accommodating arrangements B63B 25/00; fire-fighting vessels A62C 29/00; submarines, mine-layers or mine-sweepers B63G; large containers for use in or under water B65D 88/78; {Advertising on ships or other floating means G09F 21/18})
27/18	. . using cableways, e.g. with breeches-buoys (cableways <i>per se</i> B65G)	2035/001	. {for beach loading or unloading, e.g. landing crafts}
27/20	. {with continuous action}	2035/002	. {for inland waters, e.g. for use on canals or rivers}
27/22	. . of conveyors, e.g. of endless-belt or screw-type (arrangements of devices with throwing action B63B 27/26 ; arrangements of chutes B63B 27/28 ; conveyors <i>per se</i> B65G)	35/003	. {for transporting very large loads, e.g. offshore structure modules (construction methods for artificial islands mounted on piles E02B 17/00 ; for transporting marine vessels B63B 35/40 ; docks B63C 1/00)}
27/24	. . Loading or unloading fluids	2035/004	. {Passenger vessels, e.g. cruise vessels or the like}
27/25	. . . {Arrangement of ship-based loading or unloading equipment} for fluidised bulk material	2035/005	. {Search and rescue [SAR] vessels}
27/26	. . using devices with throwing action (devices with throwing action <i>per se</i> B65G)	2035/006	. {Unmanned surface vessels, e.g. remotely controlled}
27/28	. . using chutes (chutes <i>per se</i> B65G)	2035/007	. . {autonomously operating}
27/30	. {Arrangement of ship-based loading or unloading equipment} for transfer at sea between ships or between ships and off-shore structures	2035/008	. . {remotely controlled}
27/32	. . using cableways	2035/009	. {Wind propelled vessels comprising arrangements, installations or devices specially adapted therefor, other than wind propulsion arrangements, installations, or devices, such as sails, running rigging, or the like, and other than sailboards or the like or related equipment}
27/34	. . using pipe-lines {(anchoring arrangements for special vessels with mooring turrets B63B 21/507 ; buoys specially adapted for mooring a vessel and for transferring fluids, e.g. liquids B63B 22/021)}	35/03	. . Pipe-laying vessels (laying pipes under water F16L 1/12)
27/36	. {Arrangement of ship-based loading or unloading equipment} for floating cargo (devices for facilitating retrieval of floating objects <i>per se</i> B66C 13/02)	35/04	. . Cable-laying vessels
29/00	Accommodation for crew or passengers not otherwise provided for	35/06	. . for moving cable-ends from ship to shore
29/02	. Cabins or other living spaces; Construction or arrangement thereof	35/08	. . Ice-breakers, or other vessels or floating structures for operation in ice-infested waters; Ice-breakers, or other vessels or floating structures having equipment specially adapted therefor
2029/022	. . {Bathing platforms}		NOTE
29/025	. . {Modular or prefabricated cabins}		{Documents concerning vessels, or floating structures adapted at the same time for an other particular purpose are also classified in the respective other particular groups of

B63B

B63B 35/08

(continued)

- [B63B 35/00](#), e.g. floating buildings, stores, drilling platforms or workshops for operation in ice infested waters are also classified in [B63B 35/44](#)
- 35/083 . . {Ice-breakers ([B63B 35/10](#), [B63B 35/12](#) take precedence)}
 - 35/086 . . {Vessels for displacing icebergs, or related methods ([tugs in general B63B 35/66](#))}
 - 35/10 . . having forced pitching or rolling equipment
 - 35/12 . . having ice-cutters
 - 35/14 . . Fishing vessels ([fishing A01K 69/00 - A01K 97/00](#))
 - 35/16 . . Trawlers
 - 35/18 . . . adapted to dragging nets aboard
 - 35/20 . . . adapted to hoisting nets aboard
 - 35/22 . . Whale catchers; Whale factory vessels
 - 35/24 . . Fish holds
 - 35/26 . . . for live fish
 - 35/28 . . Barges or lighters {(underwater-towed barges [B63G 8/42](#); for transporting logs [B63B 35/62](#))}
 - 35/285 . . {Flexible barges, e.g. bags}
 - 35/30 . . self-discharging
 - 35/301 . . . {discharging by turning over part of or the whole barge}
 - 35/303 . . . {discharging by suction, pressing or washing}
 - 35/305 . . . {discharging by mechanical means}
 - 35/306 . . . {discharging through dump-gates on the bottom or sides of the barge}
 - 35/308 . . . {Split barges interconnected hingedly or slidably}
 - 35/32 . . for collecting pollution from open water
- NOTE**
- If the apparatus for collecting pollution from open water is of interest apart from ship construction aspects, it is also classified in group [E02B 15/00](#)
- 35/34 . . pontoons ([floating bridges E01D 15/14](#))
 - 35/36 . . foldable
 - 35/38 . . Rigidly-interconnected pontoons
 - 35/40 . . for transporting marine vessels {(load accommodation for floating barges and the like [B63B 25/006](#))}
 - 2035/405 . . {for carrying submarines}
 - 35/42 . . with adjustable draught
 - 35/44 . . Floating buildings, stores, drilling platforms, or workshops, e.g. carrying water-oil separating devices {(construction methods for floating offshore platforms [B63B 9/065](#))}
 - 35/4406 . . {Articulated towers, i.e. substantially floating structures comprising a slender tower-like hull anchored relative to the marine bed by means of a single articulation, e.g. using an articulated bearing}
 - 35/4413 . . {Floating drilling platforms, e.g. carrying water-oil separating devices}
 - 2035/442 . . {Spar-type semi-submersible structures, i.e. shaped as single slender, e.g. substantially cylindrical or trussed vertical bodies}
 - 2035/4426 . . {Stationary floating buildings for human use, e.g. floating dwellings or floating restaurants}
 - 2035/4433 . . {Floating structures carrying electric power plants}
 - 2035/444 . . . {for converting combustion energy into electric energy}
 - 2035/4446 . . . {for converting nuclear energy into electric energy}
 - 2035/4453 . . . {for converting solar energy into electric energy}
 - 2035/446 . . . {for converting wind energy into electric energy}
 - 2035/4466 . . . {for converting water energy into electric energy, e.g. from tidal flows, waves or currents}
 - 2035/4473 . . {Floating structures supporting industrial plants, such as factories, refineries, or the like}
 - 2035/448 . . {Floating hydrocarbon production vessels, e.g. Floating Production Storage and Offloading vessels [FPSO]}
 - 2035/4486 . . {Floating storage vessels, other than vessels for hydrocarbon production and storage, e.g. for liquid cargo}
 - 2035/4493 . . {Floating structures supporting vegetation, such as trees, reeds, crops, plants, or the like, e.g. flexible structures}
 - 35/50 . . Vessels or floating structures for aircraft ([aircraft carriers B63G 11/00](#); flying-boat hulls, other flotation means for aircraft [B64](#))
 - 35/52 . . Nets, slipways or the like, for recovering aircraft from the water
 - 35/53 . . Floating runways
 - 35/54 . . Ferries ([propulsion of chain ferries B63H](#))
 - 35/56 . . Lightships ([marking of navigational route B63B 51/00](#))
 - 35/58 . . Rafts, i.e. free floating waterborne vessels, of shallow draft, with little or no freeboard, and having a platform or floor for supporting a user ([lifeboats, life-rafts or the like B63C 9/02](#))
 - 35/607 . . having a platform or floor below the level of the buoyancy means, e.g. suspended basket type
 - 35/613 . . with tubular shaped flotation members
 - 35/62 . . formed from logs or the like
 - 35/66 . . Tugs ([towing or pushing equipment B63B 21/56](#))
 - 35/665 . . {Floating propeller units, i.e. a motor and propeller unit mounted in a floating box ([outboard propulsion units B63H 20/00](#))}
 - 35/68 . . for towing
 - 35/70 . . for pushing
 - 35/71 . . Canoes, kayaks or the like {(collapsible, foldable, inflatable or like vessels [B63B 7/00](#))}
 - 2035/715 . . {Accessories specially adapted for kayaks, canoes, or the like, other than paddles or footrests, e.g. seats, detachable rudders, detachable propulsion means or sailing rigs}
 - 35/73 . . Other vessels or like floating structures for pleasure or sport
 - 35/731 . . {Waterscooters}
 - 35/732 . . {House boats}
 - 2035/734 . . {Racing rowing boats, i.e. light, long, narrow racing boats propelled by rowing using oars or sculls; Accessories therefor, other than means for effecting propulsion}
 - 2035/735 . . {Towed structures, the towing member, e.g. tow-rope, being connected to the towed structure}
 - 2035/737 . . {for particular use, not otherwise provided for}
 - 2035/738 . . . {for hunting, or fishing}

- 35/74 . . . Body supporting buoyant devices with seat {; and bathing boats}
- 35/76 . . . Ring-shaped buoyant member
- 35/78 . . . U-shaped buoyant members
- 35/79 . . . Surf-boards, e.g. sailboards
- 2035/7903 . . . {Body-boards, i.e. surfboards specially adapted for use by users in prone position; Planing members attachable to, or held by body-surfers}
- 35/7906 . . . {Construction or shape of the boards}
- 35/7909 {characterised by the arrangement of constructive parts made predominantly of plastics, e.g. layers}
- 35/7913 {inflatable}
- 35/7916 {sectionalised}
- 35/792 {catamaran-shaped ([B63B 35/7923](#) takes precedence)}
- 35/7923 {with hydrofoils ([hydrofoils per se B63B 1/24](#))}
- 35/7926 {Fins, keels or steering devices acting on water}
- 35/793 {Fixations for fins which do not normally move during sailing, e.g. fixations that can be slidably set before sailing}
- 35/7933 . . . {Emergency arrangements and equipment; Other accessories ([anti-theft devices using locks E05B 73/007](#))}
- 35/7936 {Arrangements for the feet of the surfer}
- 2035/794 {Leashes, i.e. security lines, or tethers connecting a board to the rider, e.g. to a limb; Attachment means therefor}
- 35/7943 . . . {Motordriven boards}
- 35/7946 . . . {Stowing or transporting arrangements ([transporting on vehicles B60R 9/08](#))}
- 35/795 . . . {transformable into another vehicle, e.g. sailboat, watercycle}
- 35/7953 . . . {Winddriven boards}
- 2035/7956 {Masts for winddriven boards; Equipment therefor, other than mastfoot arrangements}
- 35/7959 {Mast foot arrangements}
- 2035/7963 {comprising shock absorbing elements}
- 35/7966 {Wishbone}
- 35/7969 {Connection to the mast}
- 35/7973 {Sail arrangements}
- 35/7976 {Sails pivotally mounted at a mast-tip; Kite-sails ([kites per se B64C 31/06](#))}
- 35/7979 {Control means for kite-sails; Harnesses for connecting kite-sails to a user, e.g. of quick release type}
- 35/7983 {Sails with detachable sections, e.g. to change the sail area}
- 2035/7986 {Clew trimmers, i.e. mechanisms or arrangements for trimming or positioning the clew of the sail, or for tensioning the outhaul}
- 35/7989 {Devices to tension the luff of the sail}
- 35/7993 {Harnesses or handgrips}
- 35/7996 {with elastic connection to the wishbone}
- 35/81 . . . Waterskis; Watersledges
- 35/811 . . . {with means for additional lift by provision of hollow bodies}
- 35/812 . . . {Bindings}
- 2035/813 . . . {Fins, keels, or the like water guiding means; Arrangements thereof on waterskis}
- 35/815 {Towing devices}
- 35/816 {Connection of the tow to the boat; using winches ([winches per se B66D](#))}
- 35/817 {Handles}
- 2035/818 {Wakeboards, i.e. monobords for users being towed behind a boat, the board comprising bindings oriented substantially perpendicular to the longitudinal axis of the board}
- 35/83 . . . Water shoes; Bog shoes
- 35/85 . . . Accessories not otherwise provided for, e.g. sticks for water skiing
- 2035/855 {Equipment or arrangements for generating waves, particularly adapted for surfing, waterskiing, or the like}
- 38/00 Vessels or like floating structures not otherwise provided for (vessels characterised by load-accommodating arrangements [B63B 25/00](#); fire-extinguishing vessels [A62C 29/00](#); submarines, mine-layers or mine-sweepers [B63G](#); large containers for use in or under water [B65D 88/78](#))**
- 39/00 Equipment to decrease pitch, roll, or like unwanted vessel movements; Apparatus for indicating vessel attitude {(for amphibious vehicles [B60F 3/0038](#))}**
- 39/005 . . . {Equipment to decrease ship's vibrations produced externally to the ship, e.g. wave-induced vibrations (propulsion mountings for anti-vibration purposes [B63H 21/30](#); vibration dampers, suppression of vibration in systems [F16F](#))}
- 39/02 . . . to decrease vessel movements by displacement of masses
- 39/03 . . . by transferring liquids
- 39/04 . . . to decrease vessel movements by using gyroscopes directly
- 39/06 . . . to decrease vessel movements by using foils acting on ambient water ([constructional aspects of bilge keels B63B 3/44](#) {; foils mounted on the housing of outboard motors [B63H 20/34](#))}
- 39/061 . . . {by using trimflaps, i.e. flaps mounted on the rear of a boat, e.g. speed boat}
- 39/062 . . . {the foils being mounted on outriggers or the like, e.g. antidrift hydrofoils for sail boats ([hydrofoils B63B 1/24](#); [drop keels B63B 41/00](#))}
- 2039/063 . . . {the foils comprising flexible portions}
- 2039/065 . . . {the foils being pivotal about an axis substantially parallel to the longitudinal axis of the vessel}
- 2039/066 . . . {the lift generating devices using the Magnus effect}
- 2039/067 . . . {effecting motion dampening by means of fixed or movable resistance bodies, e.g. by bilge keels}
- 2039/068 . . . {the foils having a variable cross section, e.g. a variable camber}
- 39/08 . . . to decrease vessel movements by using auxiliary jets or propellers ([for steering or dynamic anchoring B63H 25/00](#))
- 39/10 . . . to decrease vessel movements by damping the waves, e.g. by pouring oil on water
- 2039/105 . . . {by absorption of wave energy, e.g. by structured, wave energy absorbing hull surfaces}
- 39/12 . . . for indicating draught or load
- 39/14 . . . for indicating inclination or duration of roll

- 41/00** Drop keels, e.g. centre boards or side boards {; Collapsible keels, or the like, e.g. telescopically; Longitudinally split hinged keels (keels integral with hull [B63B 3/38](#); foils or keels on surf-boards [B63B 35/7906](#); stabilising foils [B63B 39/06](#))}
- 2041/003 . {Collapsible keels, or the like, e.g. telescopically; Longitudinally split hinged keels}
- 2041/006 . . {Telescopically collapsible keels}
- 43/00** Improving safety of vessels, e.g. damage control, not otherwise provided for (fire-fighting in ships [A62C 3/10](#))
- 2043/003 . {Arrangements of emergency exits, e.g. for escape from engine rooms}
- 2043/006 . {Methods or installations specially adapted for detecting ingress of ambient water, e.g. leak detectors}
- 43/02 . reducing risk of capsizing or sinking (by means of watertight doors in bulkheads [B63B 43/24](#))
- 43/04 . . by improving stability
- 2043/042 . . . {using outboard booms supporting ballast, other than solid ballast or persons, e.g. carrying water-filled bags}
- 43/045 . . . {by decreasing the free surface effect of water entered in enclosed decks}
- 2043/047 . . . {by means of hull shapes comprising a wide hull portion near the design water line, and a slender, buoyancy providing, main hull portion extending towards the bottom}
- 43/06 . . . using ballast tanks (conduits for emptying or ballasting [B63B 13/00](#))
- 43/08 . . . by transfer of solid ballast
- 43/085 {the stabilising effect being provided by the weight of a person placed on an outrigger seat swingable around a vertical axis}
- 43/10 . . by improving buoyancy {(amphibious cycles [B60F 3/0038](#))}
- 43/12 . . . using inboard air containers {or inboard floating members}
- 2043/123 {using floaters mounted to the tip of a mast, e.g. inflatable}
- 2043/126 {pneumatic, e.g. inflatable on demand}
- 43/14 . . . using outboard floating members
- 2043/145 {pneumatic, e.g. inflatable on demand}
- 43/16 . . . Temporary equipment for stopping leaks, e.g. collision mats
- 43/18 . preventing collision {or grounding}; reducing collision damage {(reducing pollution by collision [B63B 25/082](#))}
- 2043/185 . . {using shock absorbing telescoping buffers}
- 43/20 . . Feelers
- 43/24 . Arrangements of watertight doors in bulkheads
- 43/26 . . of sliding type
- 43/28 . . . with mechanical drive
- 43/30 . . . with fluid drive
- 43/32 . . of non-sliding type
- 45/00** Arrangements or adaptations of signalling or lighting devices (arrangement of signalling or lighting devices, the mounting or supporting thereof or circuits therefor, for vehicles in general [B60Q](#); life-buoys, -belts, -jackets, -suits or the like, characterised by signalling means [B63C 9/20](#); lighting devices or systems therefor [F21L](#), [F21S](#))
- 2045/005 . {comprising particular electric circuits}
- 45/02 . the devices being intended to illuminate the way ahead or other areas of environments
- 45/04 . the devices being intended to indicate the vessel or parts thereof
- 45/06 . the devices being intended to illuminate vessels' decks or interior
- 45/08 . the devices being acoustic
- 49/00** Arrangements of nautical instruments or navigational aids (nautical measuring instruments [G01C](#); radio navigation, analogous arrangements using other waves [G01S](#))
- 51/00** Marking of navigation route
- 51/02 . with anchored lightships; by use of lighthouses
- 51/04 . with free-floating flares
- 57/00** Tank {or cargo hold} cleaning specially adapted for vessels (tank cleaning in general [B08B 9/08](#))
- 2057/005 . {of ballast tanks, e.g. from deposits, biological organisms; Ship-borne installations therefor}
- 57/02 . by washing
- 57/04 . by ventilating
- 59/00** Hull protection peculiar to vessels; Cleaning devices peculiar to vessels and integral therewith (cleaning of vehicles in general [B60S](#); other cleaning in general [B08B](#); inhibiting corrosion of metals by anodic or cathodic protection [C23F 13/00](#))
- 59/02 . Fenders integral with waterborne vessels or specially adapted therefor, {e.g. fenders forming part of the hull or incorporated in the hull}; Rubbing-strakes (fenders on coasts, in harbours or on other fixed marine structures [E02B 3/26](#))
- 2059/025 . . {pneumatic, e.g. inflatable}
- 59/04 . Preventing hull fouling (anti-fouling paints [C09D 5/16](#))
- 59/045 . . {by wrapping the submerged hull or part of the hull with an impermeable sheet (stopping temporarily leaks in hulls with impermeable sheets [B63B 43/16](#))}
- 59/06 . Cleaning devices for hulls
- 2059/065 . . {mounted on land-borne vehicles, e.g. travelling on the bottom of a dry-dock}
- 59/08 . . of underwater surfaces while afloat ([B63B 59/10](#) takes precedence)
- 2059/082 . . . {the devices being supported on arms or rods}
- 2059/085 . . . {the devices being adapted for operation by divers}
- 2059/087 . . . {the devices being adapted for being pulled across, or along the underwater surface to be cleaned, e.g. by ropes}
- 59/10 . . using trolleys or the like driven along the surface
- 69/00** Equipment for shipping not otherwise provided for
- 2201/00** Signalling devices
- 2201/02 . Audible
- 2201/04 . Illuminating
- 2201/06 . . by combustion of fluid
- 2201/08 . . Electric light
- 2201/10 . Smoke producing
- 2201/12 . Reflecting means
- 2201/14 . Balloon
- 2201/16 . Radio

- 2201/18 . Sonar
- 2201/20 . Antenna or mast
- 2201/22 . Spread-open chemicals or other products
- 2201/24 . by means of bubbles
- 2201/26 . signalling anomalies, e.g. rupture of connection
- 2203/00 Communication means**
- 2203/02 . telephone
- 2205/00 Tether**
- 2205/02 . Having payout means
- 2205/04 . . Having means to control payout
- 2205/06 . . Reel for tether
- 2205/08 . with means for recovering the sunken object
- 2207/00 Buoyancy or ballast means**
- 2207/02 . Variable ballast or buoyancy
- 2207/04 . Pressure equalising or adjusting
- 2209/00 Energy supply or activating means**
- 2209/02 . water activated switches
- 2209/04 . water activated batteries
- 2209/06 . fluid produced by reaction with water
- 2209/08 . impact with water-surface or -bottom
- 2209/10 . pyrotechnic means
- 2209/12 . with time-delay
- 2209/14 . energy generated by movement of the water
- 2209/16 . nuclear energy
- 2209/18 . solar energy
- 2209/20 . wind energy
- 2211/00 Applications**
- 2211/02 . Oceanography
- 2211/04 . Diving
- 2211/06 . Operation in ice-infested waters
- 2213/00 Navigational aids and use thereof, not otherwise provided for in this class**
- 2213/02 . using satellite radio beacon positioning systems, e.g. the Global Positioning System GPS
- 2221/00 Methods and means for joining members or elements**
- 2221/02 . by welding
- 2221/04 . by soldering
- 2221/06 . by riveting
- 2221/08 . by means of threaded members, e.g. screws, threaded bolts or nuts
- 2221/10 . using adhesives
- 2221/12 . by means of hook and loop fasteners
- 2221/14 . by means of zippers or the like
- 2221/16 . by means of ties, ribbons or the like
- 2221/18 . by sewing, stitching, stapling or the like methods
- 2221/20 . Joining substantially rigid elements together by means that allow one or more degrees of freedom, e.g. hinges, articulations, pivots, universal joints, telescoping joints, elastic expansion joints, not otherwise provided for in this class
- 2221/22 . . by means that allow one or more degrees of angular freedom, e.g. hinges, articulations, pivots, universal joints, not otherwise provided for in this class
- 2221/24 . . by means that allow one or more degrees of translational freedom, e.g. telescopic joints, not otherwise provided for in this class
- 2231/00 Material used for some parts or elements, or for particular purposes**
- 2231/02 . Metallic materials
- 2231/04 . . Irons, steels or ferrous alloys
- 2231/06 . . . Stainless steels
- 2231/10 . . Aluminium or aluminium alloys
- 2231/12 . . Copper or copper alloys
- 2231/14 . . . Bronze, e.g. nickel-aluminium bronze
- 2231/16 . . . Brass
- 2231/18 . . Titanium or titanium alloys
- 2231/20 . . Magnesium or magnesium alloys
- 2231/28 . . Shape-memory alloys
- 2231/30 . Magnetic materials
- 2231/32 . Vegetable materials or material comprising predominately vegetable material
- 2231/34 . . Wood or wood products
- 2231/40 . Synthetic materials
- 2231/42 . . Elastomeric materials
- 2231/44 . . . Rubber
- 2231/46 Natural rubber or caoutchouc
- 2231/48 Synthetic rubber, e.g. silicone rubber, Neoprene, polyurethane
- 2231/50 . . Foamed synthetic materials
- 2231/52 . . Fibre reinforced plastics materials
- 2231/60 . Concretes
- 2231/62 . . Lightweight concretes
- 2231/64 . . Reinforced or armoured concretes
- 2231/66 . . . Fibre reinforced concretes, e.g. synthetic fibre reinforced concretes
- 2231/68 . . Prestressed concretes
- 2231/70 . Glass
- 2231/72 . . Hollow glass microspheres
- 2231/74 . Bituminous materials or the like
- 2231/76 . Ice
- 2241/00 Design characteristics**
- 2241/02 . Design characterised by particular shapes
- 2241/04 . . by particular cross sections
- 2241/06 . . . Circular cross sections
- 2241/08 . . . Polygonal cross sections
- 2241/10 . . by particular three dimensional shapes
- 2241/12 . . . annular or toroidal
- 2241/14 . . . spherical
- 2241/16 . . . polyhedral
- 2241/20 . Designs or arrangements for particular purposes not otherwise provided for in this class
- 2241/22 . . for providing redundancy to equipment or functionality of a vessel, e.g. for steering
- 2241/24 . . for facilitating transport, e.g. hull shape with limited dimensions
- 2241/26 . . . for transport on roads, e.g. hull shape with maximum dimensions for public roads
- 2241/28 . . . for airborne transport
- 2701/00 Building of the ship's hull**
- 2701/02 . Steel construction
- 2701/04 . Reinforced concrete construction
- 2701/06 . Wood construction; Composite construction
- 2701/08 . Electric and fusion welding for ships ([welding in general B23K](#))
- 2701/10 . Keelsons, floors, double bottoms, tanks, coal bunkers, tunnels, engine and boiler rooms

- 2701/12 . Frames, web frames, deck beams, longitudinal girders, coamings, deck pillars
- 2701/14 . Deck plating, wooden decks for steel ships
- 2701/16 . Shell plating and bulwarks; Fenders; Gunwales; Bilge keels and other elements fixed to the shell
- 2701/18 . Longitudinal and transverse bulkheads made of steel or wood
- 2701/20 . Stems and keels; Stern frames; Bossings and struts; Propeller guards
- 2701/22 . Lining and panelling in wood or metal; Movable partition walls within accommodation spaces; Insulating walls; Stairs; Windshields on decks ([internal partitions for buildings E04B 2/00](#))
- 2702/00 Submarines**
- 2702/02 . Equipment for lifting sunken submarines ([Equipment for salvaging sunken vessels or other objects B63C 7/00](#))
- 2702/04 . Arrangements of motors and transmissions in submarines; Propulsion
- 2702/06 . Arrangements for the transportation, drydocking, and testing of submarines ([drydocking B63C 1/00](#))
- 2702/08 . Arrangements for anchoring of submarines
- 2702/10 . Miscellaneous arrangement for submarines
- 2702/12 . Submarines of special construction or fitted with special devices or apparatus; Merchant submarines
- 2702/14 . Arrangements for detecting and localising submarines ([Acoustic detection G01S](#), [electromagnetic detection G01N](#))
- 2704/00 Port-holes, windows, doors and other openings in the superstructures**
- 2705/00 Closets, latrines, swimming pools and washing facilities for ships; Overboard discharges**
- 2707/00 Doors and closing means**
- 2708/00 Winches; Capstans**
- 2708/02 . Winches and capstans driven by electric or electro-hydraulic means
- 2709/00 Tables, chairs and other furniture peculiar to vessels**
- 2710/00 Miscellaneous equipment for ships, e.g. collision mats, rat guards**
- 2711/00 Equipment for watching and measuring the oscillations, the resistance and the movements of ships; Model towing tanks**
- 2712/00 Equipment for handling the boats by means of turning davits, i.e. a set formed by the davit, davit foundation, davit drive, boat support, boat guides, boat pulley blocks and winches**
- 2712/02 . Equipment for handling the boats by means of swinging davits, i.e. a set formed by the davit, davit foundation, davit drive, boat support, boat guides, boat pulley blocks and winches
- 2713/00 Stowing of the boats, i.e. arrangement, chocks, lashing down and transport of the boats on deck**
- 2714/00 Construction of turning davits, davit foundations and davit drives**
- 2714/02 . Construction of swinging davits and other davits and of davit foundation and drives
- 2715/00 Hydraulic and pneumatic steering gear**
- 2716/00 Steam-powered steering gear**
- 2717/00 Hand-operated steering gears; Combined hand and steam-powered steering gears**
- 2718/00 Components of the steering gears, e.g. steering wheels, telemotors, driving chains, shock dampers, quadrants, arrangements to block the rudder, brakes, rudder stops**
- 2719/00 Arrangements for slowing-down of ships by means of side flaps and for creating a lateral resistance for manoeuvring**
- 2721/00 Automatic steering apparatus, non-electric**
- 2721/02 . Auxiliary steering gear and other steering arrangements
- 2722/00 Towing in general**
- 2723/00 Miscellaneous equipment for towing**
- 2724/00 Navigation signals, e.g. masthead and side lights, marking of seaways, arrangements of compasses**
- 2725/00 Engine room signals and arrangements for controlling the main engines from the navigation bridge**
- 2726/00 Miscellaneous signalling devices and draft indicators**
- 2727/00 Signalling devices using acoustic or mechanical means**
- 2727/02 . Arrangements for the detection of icebergs, reefs, derelicts, or the like
- 2728/00 Lifeboats, liferafts, lifesaving floats, etc.**
- 2729/00 Coastal lifesaving**
- 2730/00 Diving suits**
- 2730/02 . Resilient suits
- 2731/00 Arrangements for avoiding capsizing and sinking**
- 2732/00 Arrangements for avoiding or reducing collision damage**
- 2733/00 Arrangements for reducing the risk of running aground; Depth sounders**
- 2734/00 Loading and unloading ships by ship-mounted means**
- 2735/00 Miscellaneous shipbuilding-related arrangements and constructions, e.g. pontoons**
- 2736/00 Slipways, shipyard installations and apparatus for launching or hauling-out ships**
- 2737/00 Dry and floating docks; Cleaning devices for hulls; Drydocking of hull parts; Equipment for dry and floating docks**
- 2738/00 Re-floating of ships and sunken objects**
- 2738/02 . Salvaging of ships by means of floats
- 2738/04 . Salvaging of ships using cofferdams
- 2738/06 . Salvaging of ships using diving bells
- 2738/08 . Salvaging of ships by other means, e.g. using balloons or frozen blocks
- 2738/10 . Floating docks for lifting ships

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- 2738/12 . Attaching floats and chains to the hull by mechanical means; Lifting chains
- 2739/00 Boats or canoes in general; Construction and outfitting**
- 2741/00 Manual propulsion; Paddles**
- 2742/00 Anti-torpedo nets and shields for ships; Anti-submarine nets and devices for the protection of harbours and means for the destruction thereof**
- 2742/02 . Arrangements on ships for reducing danger due to torpedo or sea mine explosions
- 2743/00 Paddle wheels for ships in general**
- 2744/00 Stern paddle wheels**
- 2745/00 Propellers for ships in general ([construction of air propellers B64C](#))**
- 2745/02 . Contra-propellers and other water guiding installations in front of or behind the rotating propeller ([rudders with water guiding surfaces B63H 25/00](#))
- 2745/04 . Propulsive devices, e.g. rotating cylinders, paddle wheels; Rudders or stabilising surfaces using Magnus effect
- 2746/00 Propellers with air exhaust, e.g. hollow propellers for ships**
- 2747/00 Arrangements of propellers and other propulsive devices on ships**
- 2747/02 . Propellers driven by outboard motors placed astern or on the sides of the ship
- 2748/00 Propeller hubs and blade connections**
- 2749/00 Propeller shafts and paddle-wheel shafts; Shaft liners**
- 2750/00 Propeller shaft bearings, thrust bearings**
- 2751/00 Propulsion of ships using the reaction effect of a water jet**
- 2752/00 Propulsion of ships using the reaction effect of steam jets or gas jets**
- 2753/00 Propulsion of ships using the reaction effect of gas explosions**
- 2754/00 Propulsive flaps**
- 2755/00 Electric drives for the propulsive devices**
- 2756/00 Steam reciprocating engine drives for the propulsive devices**
- 2757/00 Steam turbine drives for the propulsive devices**
- 2758/00 Internal combustion engine drives for the propulsive devices**
- 2759/00 Other means for driving marine propulsion devices; Arrangements for synchronising two or more engines**
- 2760/00 Marine drive governors that are influenced by the movements of the ship**
- 2770/00 Apparatus or methods specially adapted for use on marine vessels, for handling power plant or unit liquids, e.g. lubricants, coolants, fuels or the like**