

SECTION B — PERFORMING OPERATIONS; TRANSPORTING

B63 SHIPS OR OTHER WATERBORNE VESSELS; RELATED EQUIPMENT

B63B SHIPS OR OTHER WATERBORNE VESSELS; EQUIPMENT FOR SHIPPING (arrangements of vessel ventilation, heating, cooling, or air-conditioning B63J 2/00; floating substructures as supports of dredgers or soil-shifting machines E02F 9/06) [2]

Subclass index

HULLS

Study; general characteristics.....	9/00, 1/00
General; adjustable keels; protection.....	3/00, 41/00, 59/00
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Subdivision; cleaning of tanks.....	11/00, 57/00
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EMPTYING, BALLASTING; STABILITY; SAFETY.....	13/00, 29/16, 39/00, 43/00
MOORING, SHIFTING; HANDLING LIFEBOATS.....	21/00, 23/00
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PARTICULAR KINDS OF SHIPS OR FLOATING STRUCTURES NOT OTHERWISE PROVIDED FOR.....	35/00, 38/00
BUOYS; MARKING NAVIGATION ROUTES.....	22/00, 51/00

1/00 Hydrodynamic or hydrostatic features of hulls or of hydrofoils (hulls peculiar to submarines B63B 3/13; keels B63B 3/38)	3/08 • • with detachably-connected sub-units
1/02 • deriving lift mainly from water displacement (B63B 1/16 takes precedence)	3/09 • Hulls constructed of non-magnetic metal
1/04 • • with single hull	3/10 • Armoured hulls
1/06 • • • Shape of fore part	3/12 • Frameless hulls
1/08 • • • Shape of aft part	3/13 • Hulls built to withstand hydrostatic pressure when fully submerged, e.g. submarine hulls
1/10 • • with multiple hulls	3/14 • Hull parts (hull armour B63B 3/10)
1/12 • • • the hulls being interconnected rigidly	3/16 • • Shells (ports or closures therefor B63B 19/00)
1/14 • • • the hulls being interconnected resiliently	3/18 • • • characterised by being formed predominantly of parts that may be developed into plane surfaces
1/16 • deriving additional lift from hydrodynamic forces	3/20 • • • of double type
1/18 • • of hydroplane type	3/22 • • • with corrugations
1/20 • • • having more than one planing surface (B63B 1/22 takes precedence)	3/24 • • • Means for diminishing external ridges or protrusions
1/22 • • • with adjustable planing surfaces	3/26 • • Frames
1/24 • • of hydrofoil type	3/28 • • • of transverse type; Stringers
1/26 • • • having more than one hydrofoil (B63B 1/28 takes precedence)	3/30 • • • • Bilge knees; Beam knees
1/28 • • • with movable hydrofoils	3/32 • • • Web frames; Web beams
1/30 • • • • retracting or folding	3/34 • • • of longitudinal type; Bulkhead connections
1/32 • Other means for varying the inherent hydrodynamic characteristics of hulls	3/36 • • • Combined frame systems
1/34 • • by reducing surface friction	3/38 • • Keels (movable keels B63B 41/00)
1/36 • • • using mechanical means	3/40 • • Stern posts; Stern frames
1/38 • • • using air bubbles or air layers	3/42 • • Shaft brackets
1/40 • • by diminishing wave resistance	3/44 • • Bilge keels (stabilising aspect B63B 39/06)
3/00 Constructions of hulls (non-metallic hulls B63B 5/00)	3/46 • • Stems
3/02 • Hulls assembled from prefabricated sub-units	3/48 • • Decks (planking B63B 5/06)
3/04 • • with permanently-connected sub-units	3/50 • • • of vaulted type
3/06 • • • the sub-units being substantially identical	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
 - 5/08 • • • 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

- 7/00 Collapsible, foldable, inflatable, or like vessels** (foldable pontoons B63B 35/36)
 - 7/02 • comprising only rigid parts
 - 7/04 • • sectionalised
 - 7/06 • having parts of non-rigid material
 - 7/08 • • inflatable (inflatable buoys B63B 22/22; inflatable life-rafts B63C 9/04)

- 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) [2]
 - 9/02 • using towing tanks or model basins for designing
 - 9/04 • Rebuilding ships, e.g. increasing tonnage
 - 9/06 • Methods of building hulls [2]
 - 9/08 • Determining vessel properties with respect to stability or balance [2]

- 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 or ballast tanks, e.g. with elastic walls
 - 11/06 • Propeller-shaft tunnels

- 13/00 Conduits for emptying or ballasting; Self-bailing equipment; Scuppers**
 - 13/02 • Ports for passing water through vessels' sides

- 15/00 Superstructures; Arrangements or adaptations of masts**
 - 15/02 • Staying of masts or of other superstructures

- 17/00 Vessels parts, details, or accessories, not otherwise provided for**
 - 17/02 • Awnings
 - 17/04 • Stanchions; Guard-rails
 - 17/06 • Refuse discharge, e.g. for ash

- 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)
 - 19/02 • Clear-view screens
 - 19/04 • Air-catching equipment related to windows or port-holes
 - 19/06 • • readily detachable
 - 19/08 • Ports or like openings in vessels' sides (ports for passing water through vessels' sides B63B 13/02)
 - 19/10 • • Coal ports
 - 19/12 • Hatches; Hatchways (hatch coamings B63B 3/54)
 - 19/14 • • Hatch covers
 - 19/16 • • • with detachable boards
 - 19/18 • • • slidable
 - 19/19 • • • foldable [3]
 - 19/197 • • • • actuated by fluid pressure [3]
 - 19/203 • • • • actuated by cables or the like [3]
 - 19/21 • • • of roll-up type [3]
 - 19/22 • • Hatch beams
 - 19/24 • • Hatch fastenings, e.g. cleats
 - 19/26 • • Gaskets; Draining means
 - 19/28 • • Other safety devices

- 21/00 Tying-up; Shifting, towing, or pushing equipment; Anchoring** (dynamic anchoring B63H 25/00) [4]
 - 21/02 • Magnetic mooring equipment
 - 21/04 • Fastening or guiding equipment for chains, ropes, hawsers, or the like
 - 21/06 • • Bollards
 - 21/08 • • Clamping devices
 - 21/10 • • Fairleads
 - 21/12 • • Rat guards
 - 21/14 • • Hawse-holes; Hawse-pipes; Hawse-hole closures
 - 21/16 • using winches
 - 21/18 • Stoppers for anchor chains
 - 21/20 • Adaptations of chains, ropes, hawsers, or the like, or of parts thereof
 - 21/22 • Handling or lashing anchors
 - 21/24 • Anchors
 - 21/26 • • securing to bed
 - 21/27 • • • by suction [2]
 - 21/28 • • • driven-in by explosive charge
 - 21/29 • • • by weight, e.g. flukeless weight anchors [2]
 - 21/30 • • rigid when in use [3]
 - 21/32 • • • with one fluke
 - 21/34 • • • with two or more flukes
 - 21/36 • • • • foldable
 - 21/38 • • pivoting when in use [3]
 - 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 chain [2]
 - 21/48 • • Sea-anchors; Drogues
 - 21/50 • Anchoring arrangements for special vessels, e.g. for floating drilling platforms or dredgers
 - 21/54 • Boat-hooks or the like
 - 21/56 • Towing or pushing equipment (tugs B63B 35/66)
 - 21/58 • • Adaptations of hooks for towing; Towing-hook mountings
 - 21/60 • • • Quick releases
 - 21/62 • • characterised by moving of more than one vessel

- 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) [2]
- 21/66 • • Equipment specially adapted for towing underwater objects or vessels, e.g. fairings for tow-cables [3]
- 22/00 Buoys** (means for indicating the location of underwater objects B63C 7/26; life-buoys, e.g. rings, B63C 9/08) [4]
- 22/02 • specially adapted for mooring a vessel [4]
- 22/04 • Anchoring arrangements [4]
- 22/06 • • with means to cause the buoy to surface in response to a transmitted signal [4]
- 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 [4]
- 22/10 • • • Water soluble or water weakened means, i.e. buoy released by buoy-to-object securing means being destroyed on contact with water [4]
- 22/12 • • • the surfacing of the buoy being assisted by a gas released or generated on submergence of the buoy [4]
- 22/14 • • • Buoy-to-object securing means responsive to hydrostatic pressure [4]
- 22/16 • specially adapted for marking a navigational route [4]
- 22/18 • having means to control attitude or position, e.g. reaction surfaces or tether [4]
- 22/20 • • Ballast means [4]
- 22/22 • inflatable, including gas generating means (B63B 22/12 takes precedence) [4]
- 22/24 • container type, i.e. having provision for the storage of material [4]
- 22/26 • • having means to selectively release contents, e.g. swivel couplings [4]
- 22/28 • • submerged when not in use [4]
- 23/00 Equipment for handling lifeboats or the like**
- 23/02 • Davits, i.e. devices having arms for lowering boats by cables or the like
- 23/04 • • with arms pivoting on substantially-horizontal axes, e.g. gravity type
- 23/06 • • • with actual pivots
- 23/08 • • • • the arms being articulated
- 23/10 • • • • with positive drive of the arms
- 23/12 • • • • with simulated pivots
- 23/14 • • • • using linkages
- 23/16 • • • • using guide tracks
- 23/18 • • with arms pivoting on substantially-vertical axes
- 23/20 • • • Davits with single arms
- 23/22 • • • • Slings or the like therefor
- 23/24 • • • Slewing equipment therefor
- 23/26 • • with rectilinear translation of boat before lowering
- 23/28 • Devices for projecting or releasing boats for free fall
- 23/30 • Devices for guiding boats to water surface
- 23/32 • • Rigid guides, e.g. having arms pivoted near waterline
- 23/34 • • Guiding means for lowering by cables, e.g. for listing ships
- 23/36 • • • Skid fenders
- 23/38 • Transport of boats to davits or the like
- 23/40 • Use of lowering or hoisting gear
- 23/42 • • with braking equipment
- 23/44 • • • on the ship
- 23/46 • • • in the boat
- 23/48 • • using winches for boat handling
- 23/50 • • • with tensioning gear
- 23/52 • • • with control of winches from boat
- 23/54 • • with trimming equipment
- 23/56 • • • controlled from boat
- 23/58 • • with tackle-engaging or release gear
- 23/60 • • Additional connections between boat and davit
- 23/62 • Fastening or storing of boats on deck
- 23/64 • • Lashings; Covers
- 23/66 • • Blocks; Chocks
- 23/68 • • • for stacking boats
- 23/70 • Condition-responsive handling equipment, e.g. automatic release of boat from lowering tackle upon contact with water [4]
- 25/00 Load-accommodating arrangements, e.g. stowing or trimming; Vessels characterised thereby** (fishing vessel fish holds B63B 35/24; trimming otherwise than by cargo division. e.g. by use of ballast, B63B 43/06, B63B 43/08)
- 25/02 • for bulk goods
- 25/04 • • solid
- 25/06 • • • for cereals
- 25/08 • • fluid
- 25/10 • • • open to ambient air
- 25/12 • • • closed
- 25/14 • • • • pressurised
- 25/16 • • • • heat-insulated
- 25/18 • Detachable decks
- 25/20 • • for motor vehicles or the like
- 25/22 • for palletised articles
- 25/24 • Means for preventing unwanted cargo movement, e.g. dunnage
- 25/26 • for frozen goods
- 25/28 • for deck loads
- 27/00 Arrangement of ship-based loading or unloading equipment for cargo or passengers** (self-discharging barges or lighters B63B 35/30; floating cranes B66C 23/52) [3]
- Note(s)**
- Groups B63B 27/30-B63B 27/36 take precedence over groups B63B 27/04-B63B 27/28.
- 27/04 • of derricks [3]
- 27/08 • of winches [3]
- 27/10 • of cranes [3]
- 27/12 • • of gantry type [3]
- 27/14 • of ramps, gangways or outboard ladders [3]
- 27/16 • of lifts or hoists [3]
- 27/18 • of cableways, e.g. with breeches-buoys [3]
- 27/22 • of conveyors, e.g. of endless-belt or screw-type [3, 6]
- 27/24 • of pipe-lines [3]
- 27/25 • • for fluidised bulk material [3]
- 27/26 • of devices with throwing action [3]
- 27/28 • of chutes [3]
- 27/30 • for transfer at sea between ships or between ships and off-shore structures [3]
- 27/32 • • using cableways [3]
- 27/34 • • using pipe-lines [3]
- 27/36 • for floating cargo [3]
- 29/00 Accommodation for crew or passengers not otherwise provided for**

- 29/02 • Cabins or other living spaces; Construction or arrangement thereof
- 29/04 • • Furniture specially adapted for vessels
- 29/06 • • • Fastening to floors
- 29/08 • • • Storm guards on tables, e.g. fiddles
- 29/10 • • • Berths; Mounting ladders therefor
- 29/12 • • • Self-levelling mountings
- 29/14 • • Closet or like flushing arrangements; Washing or bathing facilities peculiar to ships
- 29/16 • Soil-water discharges
- 29/18 • Arrangements or adaptations of swimming pools
- 29/20 • Arrangements or adaptations of ladders (mounting ladders for berths B63B 29/10)
- 29/22 • Galleys [2]

35/00 Vessels or like floating structures adapted for special purposes (vessels characterised by load-accommodating arrangements B63B 25/00; mine-laying or mine-sweeping vessels, submarines, aircraft carriers or other vessels characterised by their offensive or defensive arrangements B63G) [5]

- 35/03 • Pipe-laying vessels [5]
- 35/04 • Cable-laying vessels [5]
- 35/06 • • for moving cable-ends from ship to shore [5]
- 35/08 • Ice-breakers [5]
- 35/10 • • having forced pitching or rolling equipment [5]
- 35/12 • • having ice-cutters [5]
- 35/14 • Fishing vessels [5]
- 35/16 • • Trawlers [5]
- 35/18 • • • adapted to dragging nets aboard [5]
- 35/20 • • • adapted to hoisting nets aboard [5]
- 35/22 • • Whale catchers; Whale factory vessels [5]
- 35/24 • • Fish holds [5]
- 35/26 • • • for live fish [5]
- 35/28 • Barges or lighters [5]
- 35/30 • • self-discharging [5]
- 35/32 • for collecting pollution from open water [5]

Note(s)

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 • Pontoon [5]
- 35/36 • • foldable [5]
- 35/38 • • Rigidly-interconnected pontoons [5]
- 35/40 • for transporting marine vessels [5]
- 35/42 • • with adjustable draught [5]
- 35/44 • Floating buildings, stores, drilling platforms, or workshops, e.g. carrying water-oil separating devices [5]
- 35/50 • Vessels or floating structures for aircraft (aircraft carriers B63G 11/00) [5]
- 35/52 • • Nets, slipways or the like, for recovering aircraft from the water [5]
- 35/53 • • Floating runways [3, 5]
- 35/54 • Ferries [5]
- 35/56 • Lightships (marking of navigational route with anchored lightships B63B 51/02) [5]
- 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 (life-rafts or the like B63C 9/02) [4, 5]
- 35/607 • • having a platform or floor below the level of the buoyancy means, e.g. suspended basket type [4, 5]
- 35/613 • • with tubular shaped flotation members [4, 5]

- 35/62 • • formed from logs or the like [4, 5]
- 35/66 • Tugs [5]
- 35/68 • • for towing [5]
- 35/70 • • for pushing [5]
- 35/71 • Canoes, kayaks or the like [4, 5]
- 35/73 • Other vessels or like floating structures for pleasure or sport [5]
- 35/74 • • Body supporting buoyant devices with seat [4, 5]
- 35/76 • • • Ring-shaped buoyant members (ring-shaped life-buoys B63C 9/08) [4, 5]
- 35/78 • • • U-shaped buoyant members [4, 5]
- 35/79 • • Surf-boards, e.g. sailboards [5]
- 35/81 • • Water skis; Water sledges [5]
- 35/83 • • Water shoes; Bog shoes [5]
- 35/85 • • Accessories not otherwise provided for, e.g. sticks for water skiing [5]

38/00 Vessels or like floating structures not otherwise provided for [5]

39/00 Equipment to decrease pitch, roll, or like unwanted vessel movements; Apparatus for indicating vessel attitude

- 39/02 • to decrease vessel movements by displacement of masses [2]
- 39/03 • • by transferring liquids [2]
- 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)
- 39/08 • to decrease vessel movements by using auxiliary jets or propellers (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 [2]
- 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

43/00 Improving safety of vessels, e.g. damage control, not otherwise provided for

- 43/02 • reducing risk of capsizing or sinking (by means of watertight doors in bulkheads B63B 43/24)
- 43/04 • • by improving stability
- 43/06 • • • using ballast tanks
- 43/08 • • • by transfer of solid ballast
- 43/10 • • by improving buoyancy
- 43/12 • • • using inboard air containers
- 43/14 • • • using outboard floating members
- 43/16 • • • Temporary equipment for stopping leaks, e.g. collision mats
- 43/18 • preventing collision; reducing collision damage
- 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 (life-buoys, life-belts, life-jackets, life-suits or the like, characterised by signalling means B63C 9/20) [4]

- 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**
- 51/00 Marking of navigational routes otherwise than with buoys [4]**
- 51/02 • with anchored lightships; by use of lighthouses [4]
- 51/04 • with free-floating flares
- 57/00 Tank cleaning specially adapted for vessels**
- 57/02 • by washing
- 57/04 • by ventilating
- 59/00 Hull protection specially adapted for vessels; Cleaning devices specially adapted for vessels**
- 59/02 • Fenders integral with waterborne vessels or specially adapted therefor; Rubbing-strakes (skid fenders for lifeboats B63B 23/36)
- 59/04 • Preventing hull fouling [3]
- 59/06 • Cleaning devices for hulls [3]
- 59/08 • • of underwater surfaces while afloat (B63B 59/10 takes precedence) [3]
- 59/10 • • using trolleys or the like driven along the surface [3]
- 69/00 Equipment for shipping not otherwise provided for [2013.01]**