

ECLA EUROPEAN CLASSIFICATION

B63H

MARINE PROPULSION OR STEERING ([N: arrangement of propulsion or steering means on amphibious vehicles [B60F3/00B](#)]; propulsion of air-cushion vehicles [B60V1/14](#); peculiar to submarines, other than nuclear propulsion, B63G; peculiar to torpedoes [F42B19/00](#)) [C1005]

[N: **Note** [M1207]

In this subclass, the indexing codes [L63B201/00](#) to [L63B241/00](#) are to be used for relevant technical information concerning particular or unusual use, materials, design, methods or means

]

B63H1/00

Propulsive elements directly acting on water (jet propulsion [B63H11/00](#); attachment of propellers on shafts [B63H23/34](#)) [C1005]

- B63H1/02 . of rotary type ([endless-track type B63H1/34](#))
- B63H1/04 . . with rotation axis substantially at right angles to propulsive direction
- B63H1/06 . . . with adjustable vanes or blades
- B63H1/08 with cyclic adjustment
- B63H1/10 of Voith Schneider type, i.e. with blades extending axially from a disc-shaped rotary body
- B63H1/12 . . with rotation axis substantially in propulsive direction
- B63H1/14 . . . Propellers ([pitch changing B63H3/00](#))

[N: **WARNING** [M1207]

this group is pending a reorganisation; also documents covered by group [B63B1/15](#) are within this group]

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- B63H1/15 having vibration damping means ([anti-vibration mounting of propulsion plant B63H21/30](#); means for damping vibration in general F16F) [N1202]

[N: **WARNING**

[N1202]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also group [B63H1/14](#)

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- B63H1/16 having a shrouding ring attached to blades
- B63H1/18 with means for diminishing cavitation e.g. supercavitation
- B63H1/20 Hubs; Blade connections
- B63H1/22 the blades being foldable
- B63H1/24 automatically foldable or unfoldable
- B63H1/26 Blades
- B63H1/26B each blade being constituted by a surface enclosing an empty space, e.g. forming a closed loop [N0110]
- B63H1/28 Other means for improving propeller efficiency ([water-guiding elements formed by shape of hull B63H5/00](#))
- B63H1/30 . of non-rotary type

- B63H1/32 . . Flaps, pistons, or the like, reciprocating in propulsive direction
- [N: **WARNING** [M1207]
this group is pending a reorganisation; also documents covered by group [B63H11/09](#) are within this group
]
- B63H1/34 . . of endless-track type
- B63H1/36 . . swinging sideways, e.g. fishtail type
- [N: **WARNING** [M1207]
this group is pending a reorganisation; also documents covered by group [B63B1/37](#) are within this group
]
- B63H1/37 . . Moving-wave propellers, i.e. wherein the propelling means comprise a flexible undulating structure [N1202]
- [N: **WARNING**
[N1202]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also group [B63H1/36](#)
]
- B63H1/38 . characterised solely by flotation properties, e.g. drums
- B63H3/00 Propeller-blade pitch changing** [N: (Aircraft propellers [B64C11/30](#); Rotors of turbines [F01D7/00](#); Axial wind motors [F03D7/02D](#); Axial-flow pumps [F04D29/00](#))] [C9903]
- B63H3/00B . [N: with individually adjustable blades]
- B63H3/00S . [N: characterised by self-adjusting pitch, e.g. by means of springs, centrifugal forces, hydrodynamic forces]
- B63H3/02 . actuated by control element coaxial with propeller shaft, e.g. the control element being rotary [N: ([B63H3/00B](#) takes precedence, fluid actuated [B63H3/08C](#))] [C9902]
- B63H3/04 . . the control element being reciprocable
- B63H3/06 . characterised by use of non-mechanical actuating means, e.g. electrical ([B63H3/00B](#) takes precedence)
- B63H3/08 . . fluid
- B63H3/08C . . . [N: actuated by control element coaxial with the propeller shaft] [N9902]
- B63H3/08C1 [N: the control element being axially reciprocable] [N9902]
- B63H3/10 . characterised by having pitch control conjoint with propulsion plant control
- B63H3/12 . the pitch being adjustable only when propeller is stationary ([B63H3/00B](#) takes precedence)
- B63H5/00 Arrangements on vessels of propulsion elements directly acting on water**
- B63H5/02 . of paddle wheels, e.g. of stern wheels
- [N: **WARNING** [M1207]

this group is pending a reorganisation; also documents covered by group [B63H5/03](#) are within this group

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- [B63H5/03](#) . . movably mounted with respect to the hull, e.g. having means to reposition paddle wheel assembly, or to retract paddle or to change paddle attitude [[N1202](#)]
- [N: **WARNING**
[[N1202](#)]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also group [B63H5/02](#)
]
- [B63H5/04](#) . . with stationary water-guiding elements
- [B63H5/07](#) . of propellers (forming part of outboard units [N: or Z-drives] [B63H20/00](#)) [[N0110](#)] [[C0201](#)]
- [B63H5/08](#) . . of more than one propeller
- [B63H5/10](#) . . . of coaxial type, e.g. of counter-rotative type
- [B63H5/125](#) . . movably mounted with respect to hull, e.g. adjustable in direction [N: e.g. podded azimuthing thrusters] ([N: outboard units or Z-drives [B63H20/00](#);) movably mounted for steering purposes only, [N: rudders carrying propellers] [B63H25/42](#)) [[N0110](#)] [[C1002](#)]
- [N: **WARNING** [[M1207](#)]
- [B63H5/125](#) and subgroups are not complete pending a reorganisation; see also groups [B63H21/26](#) and [B63H25/42](#) - this group is pending a reorganisation; also documents covered by groups [B63B20/00](#), and subgroups, and by [B63H25/42](#) are within this group]
]
- [B63H5/125B](#) . . . [N: the ability to move being conferred by gearing in transmission between prime mover and propeller and the propulsion unit being other than in a "Z" configuration] [[N1008](#)]
- [N: **WARNING** [[N1008](#)]
Some documents of group [B63H5/125B](#) are in the process of being reorganized to group [B63H20/14](#) and subgroups
]
- [B63H5/14](#) . . characterised by being mounted in non-rotating ducts or rings, e.g. adjustable for steering purpose (shrouding ring attached to blades [B63H1/16](#); jet propulsion [B63H11/00](#))
- [B63H5/15](#) . . . Nozzles, e.g. Kort-type [[N1202](#)]
- [N: **WARNING**
[[N1202](#)]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also group [B63H5/14](#)
]
- [B63H5/16](#) . . characterised by being mounted in recesses; with stationary water-guiding elements; Means to prevent fouling of the propeller, e.g. guards, cages or screens (anti-fouling paints [C09D5/16](#)) [[C9601](#)]
- [B63H5/16G](#) . . . [N: Propeller guards, line cutters or other means for protecting propellers or rudders]
- [B63H5/18](#) . . of emergency propellers, e.g. arranged at the side of the vessel
- [N: **WARNING** [[M1207](#)]

this group is pending a reorganisation; also documents covered by group [B63H5/20](#) are within this group

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- [B63H5/20](#) . . . movable from a working position to a non-working position [N: (movable arrangements of propellers in general [B63H5/125](#); outboard propulsion units in general [B63H20/00](#); steering or dynamic anchoring by propellers used therefore only, or by rudders carrying propellers [B63H25/42](#))] [N1202]

[N: **WARNING**

[N1202] This group is not complete pending a reclassification; for documents published before 01.01.2012, see also group [B63H5/18](#)

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[B63H7/00](#) Arrangements of propulsive devices directly acting on air (jet propulsion [B63H11/00](#))

- [B63H7/02](#) . using propellers (air-screws of aircraft type [B64C](#))

[B63H9/00](#) Propulsive devices directly acted on by wind; Arrangements thereof (air driven propellers driving underwater propulsive elements [B63H13/00](#))

- [B63H9/02](#) . using Magnus effect

- [B63H9/04](#) . using sails or like wind-catching surfaces (sailing sledges or ice boats [B62B15/00](#); [N: masts for sailing boats [B63B15/00M](#); sail arrangements for wind-driven boards [B63B35/79W4](#)])

- [B63H9/06](#) . . Construction or types of sails; Arrangements thereof on vessels

- [B63H9/06B](#) . . . [N: Rigid or aerofoil type sails]

- [B63H9/06B1](#) [N: Inflatable aerofoil sails] [N9411]

- [B63H9/06C](#) . . . [N: Sail battens]

- [B63H9/06D](#) . . . [N: Construction of sails (sails with detachable sections [B63B35/79W4C](#))] [C9812]

- [B63H9/06E](#) . . . [N: Sails pivotally mounted at a mast-tip; Kite sails ([B63B35/79W4B](#) takes precedence)] [C0005]

- [B63H9/08](#) . . Connections of sails to masts, spars, or the like

- [B63H9/10](#) . . . Running rigging, e.g. reefing equipment (staying of masts [B63B15/02](#))

[N: **WARNING** [M1207]

this group is pending a reorganisation; also documents covered by group [B63H9/10S](#) are within this group

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- [B63H9/10B](#) [N: Trapeze systems (harnesses for windsurfers [B63B35/79W6](#))] [C9506]

- [B63H9/10B2](#) [N: with elastic connection to harnesses] [N9607]

- [B63H9/10C](#) [N: Reefing] [N9507]

- [B63H9/10C1](#) [N: by furling around stays] [N9507]

- [B63H9/10C2](#) [N: by furling around or inside the mast] [N9507]

- [B63H9/10C3](#) [N: by furling around or inside the boom] [N9507]

- [B63H9/10D](#) [N: Spinnaker poles or rigging, e.g. combined with spinnaker handling]

- [B63H9/10E](#) [N: Boom brakes] [N9501]

- B63H9/10F [N: Boom vang] [N9806]
- B63H9/10S [N: Means for stowing, or securing sails when not in use ([B63H9/10C](#) takes precedence)] [N0205] [C1208]
- [N: **WARNING** [M1207]
[B63H9/10S](#) is not complete pending a reorganisation; see also group [B63H9/10](#)
]
- B63H11/00** **Effecting propulsion by jets, i.e. reaction principle** (steering by [N: auxiliary] jet action, [N: rudders carrying jets] [B63H25/46](#); power plant per se, see the relevant classes) [C1002]
- B63H11/01 having means to prevent foreign material from clogging fluid passage way [N9903]
- B63H11/02 the propulsive medium being ambient water
- B63H11/02B [N: by means of magneto-hydro-dynamic forces]
- B63H11/04 by means of pumps
- B63H11/06 of reciprocating type
- B63H11/08 of rotary type
- B63H11/09 by means of pressure pulses applied to a column of liquid, e.g. by ignition of an air/gas or vapour mixture [N1202]
- [N: **WARNING**
 [N1202]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also group [B63H1/32](#)
]
- B63H11/10 having means for deflecting jet or influencing cross-section thereof [C1108]
- [N: **WARNING** [N1108]
 Documents concerning deflection of the jet into a direction substantially parallel to the plane of the pump outlet are in the process of being reorganised to [B63H11/10B](#)
]
- B63H11/10B [N: having means for deflecting jet into a propulsive direction substantially parallel to the plane of the pump outlet opening] [N1108]
- [N: **WARNING** [N1108]
 Not complete, pending a reorganisation; see [B63H11/10](#) and [B63B11/107](#) and subgroups
]
- B63H11/10B2 [N: the inlet opening and the outlet opening of the pump being substantially coplanar] [N1108]
- B63H11/103 having means to increase efficiency of propulsive fluid, e.g. discharge pipe provided with means to improve the fluid flow [N9902]
- B63H11/107 Direction control of propulsive fluid [N: ([B63H11/10B](#) takes precedence)] [N9902] [C1108]
- [N: **WARNING** N1108]
 Documents concerning means for deflecting jet into a propulsive direction substantially parallel to the plane of the pump outlet opening are in the process of being reorganized to [B63H11/10B](#)
]

- B63H11/11 with bucket or clamshell-type reversing means [N9902]
- B63H11/113 Pivoted outlet [N9902]
- B63H11/117 Pivoted vane [N9902]

- B63H11/12 . the propulsive medium being steam or other gas
- B63H11/14 . . the gas being produced by combustion
- B63H11/16 . . the gas being produced by other chemical processes

- B63H13/00** **Effecting propulsion by wind motors driving water-engaging propulsive elements**

- B63H15/00** **Effecting propulsion by use of vessel-mounted driving mechanisms co-operating with anchored chains or the like**

- B63H16/00** **Effecting propulsion by muscle power** (swimming frameworks, [N: i.e. apparatus fixed to or held by the swimmer or diver] with swimmer-operated driving mechanism [A63B35/00](#); land-based training equipment for rowing or sculling [A63B69/06](#)) [C9911]

- B63H16/02 . Movable thwarts; Footrests
- B63H16/04 . Oars; Sculls; Paddles; Poles
- B63H16/06 . Rowlocks; Mountings therefor

- [N: **WARNING** [M1207]
this group is pending a reorganisation; also documents covered by groups [B63H16/067](#), and [B63H16/073](#) are within this group
]
- B63H16/067 . . Rowlocks mounted on a structure extending beyond the gunwale of the vessel [N1202]

- [N: **WARNING**
[N1202]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also group [B63H16/06](#)
]
- B63H16/073 . . having oar shaft restraining means [N1202]

- [N: **WARNING**
[N1202]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also group [B63H16/06](#)
]

- B63H16/08 . Other apparatus for converting muscle power into propulsive effort (general features of propulsion elements, see the relevant groups)
- B63H16/10 . . for bow-facing rowing
- B63H16/10A . . . [N: by using an inverting mechanism between the handgrip and the blade, e.g. a toothed transmission] [N9903]
- B63H16/10A1 [N: the mechanism having articulated rods] [N9903]
- B63H16/10B . . . [N: by placing the fulcrum outside the segment defined by handgrip and blade] [N9903]
- B63H16/12 . . using hand levers, cranks, pedals, or the like, e.g. water cycles, boats propelled by

boat-mounted pedal cycles [C1202]

[N: **WARNING**

[N1202]This group is no longer used for classification of new documents as from 01.01.2012. The backlog of this group is being continuously reclassified to groups [B63H16/16](#) to [B63H16/20](#)

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[B63H16/14](#) . . . for propelled drive [C1202]

[N: **WARNING**

[N1202] This group is no longer used for classification of new documents as from 01.01.2012. The backlog of this group is being continuously reclassified to groups [B63H16/16](#) to [B63H16/20](#)

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[B63H16/16](#) . . using reciprocating pull cable, i.e. a strand-like member movable alternately backward and forward [N1202]

[N: **WARNING**

[N1202]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also groups [B63H16/12](#) and [B63H16/14](#)

]

[B63H16/18](#) . . using sliding [N: or pivoting] handle or pedal, i.e. the motive force being transmitted to a propelling means by means of a lever operated by the hand or foot of the occupant [N1202] [M1207]

[N: **WARNING**

[N1202]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also groups [B63H16/12](#) and [B63H16/14](#)

]

[B63H16/20](#) . . using rotary cranking arm [N1202]

[N: **WARNING**

[N1202]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also groups [B63H16/12](#) and [B63H16/14](#)

]

[B63H19/00](#) Effecting propulsion of vessels, not otherwise provided for

[B63H19/02](#) . by using energy derived from movement of ambient water, e.g. from rolling or pitching of vessels

[B63H19/04](#) . . propelled by water current

[B63H19/06](#) . by discharging gas into ambient water (with jet action [B63H11/12](#); for reducing surface friction [B63B1/38](#))

[B63H19/08](#) . by direct engagement with water-bed or ground

[B63H20/00](#) Outboard propulsion units, i.e. propulsion units having a substantially vertical power leg mounted outboard of a hull and terminating in a propulsion element, e.g. "outboard motors", Z-drives [N: with level bridging shaft arranged substantially outboard] <explanation>power plants per se, see the relevant classes); Arrangements thereof on vessels [N: (transom panels for outboard motors on inflatable boats [B63B7/08C1](#); tug-type floating propeller units [B63B35/66B](#); rudders carrying propellers [B63H25/42](#); rudders carrying jets [B63H25/46](#); engines of outboard propulsion units [F02B61/04B](#))] [N0110] [C1002]

[N: **WARNING** [C1008]

<p/Not complete pending a reclassification; see also [B63H5/125B](#), as well as [B63H21/26](#) and subgroups

]

- [B63H20/00F](#)
- [N: Arrangements, apparatus and methods for handling fluids used in outboard drives (for handling exhaust gas [B63H20/24](#); for handling cooling-water [B63H20/28](#); cooling outboard marine engines [F01P3/20B](#); air intakes for outboard marine engines [F02M35/16A](#)) [N0203] [C1005]
- [N: **WARNING** [N1005]
This group and its subgroups are not complete, pending a reorganisation; see [B63H21/38](#) and [L63B770/00](#)
]
- [B63H20/00F2](#)
- [N: for handling lubrication liquids (in engines, e.g. outboard marine engines, F01M)] [N1005]
- [B63H20/00T](#)
- [N: Trolling propulsion units (trolling plates for slowing down [B63H25/50](#); dynamo-electric machines of trolling units H02K)] [N0110]
- [B63H20/02](#)
- Mounting of propulsion units ([B63H20/08](#) takes precedence) [N0110]
- [B63H20/04](#)
- in a well [N0110]
- [B63H20/06](#)
- on an intermediate support [N0110]
- [B63H20/08](#)
- Means enabling movement of the position of the propulsion element, e.g. for trim, tilt, or steering (transmissions allowing movement of the propulsion element [B63H20/14](#)); Control of trim or tilt (initiating means for steering [B63H25/02](#)) [N0110]
- [B63H20/10](#)
- Means enabling trim or tilt, or lifting of the propulsion element when an obstruction is hit; Control of trim or tilt [N0110]
- [B63H20/10D](#)
- [N: Means enabling lifting of the propulsion element in a substantially vertical, linearly sliding movement] [N0110]
- [B63H20/12](#)
- Means enabling steering [N0110]
- [B63H20/14](#)
- Transmission between propulsion power unit and propulsion element [N0110]
- [B63H20/16](#)
- allowing movement of the propulsion element in a horizontal plane only, e.g. for steering [N0110]
- [B63H20/18](#)
- allowing movement of the propulsion element about a longitudinal axis, e.g. the through transom shaft ([B63H20/22](#) takes precedence) [N0110]
- [B63H20/20](#)
- with provision for reverse drive [N0110]
- [B63H20/22](#)
- allowing movement of the propulsion element about at least a horizontal axis without disconnection of the drive, e.g. using universal joints [N0110]
- [B63H20/24](#)
- [N: Arrangements, apparatus and methods for handling exhaust gas in outboard drives, e.g.] exhaust gas outlets [N: (in engines, e.g. outboard marine engines, F01N)] [N0110] [C1005]
- [N: **WARNING** [C1005]
This group and its subgroups are not complete, pending a reorganisation; see [B63H21/32](#), [B63H21/38](#) and [L63B770/00](#)
]

- B63H20/24B . . [N: Exhaust gas outlets ([B63H20/26](#) takes precedence)] [N1005]
- B63H20/26 . . [N: Exhaust gas outlets] passing through the propeller or its hub [N0110] [C1005]
- B63H20/28 . [N: Arrangements, apparatus and methods for handling cooling-water in outboard drives, e.g.] cooling-water intakes [N: ([cooling circuits for outboard marine engines F01P3/20B](#))] [N0110] [C1005]
- [N: **WARNING** [N1005]
This group and its subgroups are not complete, pending a reorganisation; see [B63H21/38](#) and [L63B770/00](#)]
- B63H20/28B . . [N: Cooling-water intakes ([B63H20/28](#) takes precedence)] [N1005]
- B63H20/30 . . [N: Cooling-water intakes] for flushing [N: ([circuits for flushing outboard marine engines F01P3/20B2](#))] [N0110] [C1005]
- B63H20/32 . Housings [N: ([air intakes for outboard engines F02M35/16A](#))] [N0110]
- B63H20/34 . . comprising stabilising fins, [N: foils, anticavitation plates, splash plates, or rudders ([rudders carrying propellers B63H25/42](#); [rudders carrying jets B63H25/46](#))] [N0110] [C1002]
- B63H20/36 . Transporting or testing stands [N: ([hand carts for transporting outboard units B62B](#); [measuring torque G01L3/00](#), [measuring thrust of propellers G01L5/13B](#), [testing in general G01M](#)); Use of outboard propulsion units as pumps]; Protection of power legs [N: e.g. when not in use] [N0110] [C1002]
- B63H21/00** **Use of propulsion power plant or units on vessels** (use of outboard propulsion units [B63H20/00](#); hull reinforcements for carrying propulsion power plant or units [B63B3/70](#); [N: propulsion of submarines [B63G8/08](#)]; propulsion power plant or units per se, see the relevant classes) [C1005]
- [N: **WARNING** [N1208]this group is pending a reorganisation; also documents covered by group [B63H21/36](#) are within this group]
- Note**
This group comprises arrangements of propulsion power plant or units on vessels and to some extent it includes adaptations of such plant or units to facilitate such arrangements
- B63H21/02 . the vessels being steam-driven ([B63H21/18](#) takes precedence)
- B63H21/04 . . relating to positive-displacement steam engines
- B63H21/06 . . relating to steam turbines
- B63H21/08 . . relating to steam boilers
- B63H21/10 . . relating to condensers or engine-cooling fluid heat-exchangers
- B63H21/12 . the vessel being motor-driven ([B63H21/175](#), [B63H21/18](#) take precedence; [N: cooling circuits with liquid-to-liquid heat-exchange relative to marine vessels [F01P3/20C](#)]) [C0201]
- [N: **WARNING**
Group [B63H21/12](#) is no longer used for classification of vessels being motor-driven by electric motor, powered by land vehicle supported by vessel, and powered by nuclear energy. These documents are in the process of being reorganised to groups

- [B63H21/17](#), [B63H21/175](#), and [B63H21/18](#) respectively
]
- [B63H21/14](#) . . relating to internal-combustion engines [N: (of outboard type [B63H20/00](#))] [C1002]
- [B63H21/16](#) . . relating to gas turbines
- [B63H21/165](#) . . by hydraulic fluid motor, i.e. wherein a liquid under pressure is utilised to rotate the propelling means [N: (transmission from power plant or unit to propeller using fluid gearing per se [B63H23/26](#))] [N1202]
- [N: **WARNING**
[N1202]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also group [B63H21/12](#)
]
- [B63H21/17](#) . . by electric motor (electrically-propelled vehicles [B60L](#); [N: Transmitting power from propulsion power plant to propulsive elements with electric gearing [B63H23/24](#)]) [N0201] [C1005]
- [N: **WARNING**
Not complete. See [B63H21/12](#), [B63H23/24](#)
]
- [B63H21/175](#) . the vessel being powered by land vehicle supported by vessel [N9601]
- [N: **WARNING**
[N1208]not complete pending a reorganisation, see also [B63H21/12](#)
]
- [B63H21/18](#) . the vessels being powered by nuclear energy
- [N: **WARNING**
[N1208]not complete pending a reorganisation, see also [B63H21/12](#)
]
- [B63H21/20](#) . the vessels being powered by combinations of different types of propulsion units
- [B63H21/21](#) . Control means for engine or transmission, specially adapted for use on marine vessels [N1202]
- [N: **WARNING**
[N1202]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also group [B63H21/22](#)
]
- [B63H21/21B](#) . . [N: Levers or the like for controlling the engine or the transmission, e.g. single hand control levers] [N1202]
- [B63H21/22](#) . the propulsion power units being controlled from exterior of engine room, e.g. from navigation bridge; Arrangements of order telegraphs ([N: conjoint control of specific features of internal combustion engines and of propelling elements F02D]; order telegraphs per se [G08B9/00](#)) [C0205]
- [N: **WARNING** [M1207]
This group is not complete pending a reorganisation; also documents covered by group [B63H21/21](#) are within this group
]

- B63H21/24 . [N: IPC5] the vessels being small craft, e.g. racing boats [C9601]
- B63H21/26 . . [N: IPC5] of outboard type; Outboard propulsion power units movably installed for steering, reversing, tilting, or the like [N: (transom panels for outboard motors for inflatable boats [B63B7/08C1](#); floating propeller units [B63B35/66B](#))]
- [N: **WARNING**
[M1208] Group [B63H21/26](#) and subgroups are no longer used for classification. Documents are in the process of being reorganised to [B63H5/125](#), and subgroups, to [B63H20/00](#), and subgroups, and to [B63H25/42](#)
]
- B63H21/26B . . . [N: Steering or control devices for outboards (steering by rudders [B63H25/06](#); control handles for boats [B63H21/22B](#))]
- B63H21/28 . . . [N: IPC5] Arrangements of transmission between propulsion power unit and propulsive element [C9601]
- B63H21/30 . Mounting of propulsion plant or unit, e.g. for anti-vibration purposes (hull reinforcements therefor [B63B3/70](#); [N: of outboard propulsion units [B63H20/02](#)]; vibration in systems F16F; engine beds F16M) [C1005]
- B63H21/30A . . [N: with active vibration damping]
- B63H21/30B . . [N: with passive vibration damping]
- B63H21/32 . Arrangements of propulsion-unit exhaust uptakes; Funnels peculiar to vessels; [N: Small watercraft exhaust arrangements, e.g. under-water], (engine exhausts in general [F01N](#); flue devices for furnaces in general [F23J](#); [N: exhaust gas outlets forming part of outboard propulsion units or Z-drives [B63H20/24](#)]) [C0110]
- [N: **WARNING**
Group [B63H21/32](#) is no longer used for classification of documents dealing with gas exhaust outlets forming part of outboard propulsion units or Z-drives. Respective documents are in the process of being reorganised to groups [B63H20/24](#) and [B63H20/26](#)
]
- B63H21/34 . . having exhaust-gas deflecting means
- B63H21/36 . Covers or casing arranged to protect plant or unit from marine environment ([N: Housings of outboard propulsion units [B63H20/32](#)] hull construction [B63B3/00](#)) [N1202]
- [N: **WARNING**
[N1202]This group is not complete pending a reclassification; for documents published before 01.01.2012, see also group [B63H21/00](#)
]
- B63H21/38 . 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 ([N: in outboard drives [B63H20/00F](#)]; lubricating or cooling machines or engines in general F01 to F04) [N1005]
- [N: **WARNING** [N1005]
This group and its subgroups are
- systematically used for classification of documents published from 01.06.2010 onwards
- not complete; for documents published before 01.06.2010, see [L63B770/00](#)
]

- B63H21/38C . . [N: for handling cooling-water (in outboard drives [B63H20/28](#); in machines or engines in general [F01P3/00](#))] [N1005]
- B63H21/38L . . [N: for handling lubrication liquids (in machines or engines in general [F01M](#))] [N1005]

- B63H23/00** **Transmitting power from propulsion power plant to propulsive elements** (changing pitch or propellers [B63H3/00](#); adaptation of transmission to allow adjustment in location or direction of propellers [B63H5/125](#); transmission between wind motors and propulsive elements [B63H13/00](#); in outboard propulsion units [B63H20/14](#); adaptation of transmission to allow adjustment of location of propeller [B63H20/08](#); [N: adaptations of transmissions to allow steering or dynamic anchoring by propellers carried on rudders [B63H25/42](#);] for vehicles in general [B60K](#); driving auxiliary machinery [B63J](#); transmission elements per se [F16](#)) [[C1002](#)]

- B63H23/02 . with mechanical gearing
- B63H23/04 . . the main transmitting element, e.g. shaft, being substantially vertical
- B63H23/06 . . for transmitting drive from a single propulsion power unit
- B63H23/08 . . with provision for reversing drive
- B63H23/10 . . for transmitting drive from more than one propulsion power unit (for synchronisation of propulsive elements [B63H23/28](#))
- B63H23/12 . . . allowing combined use of the propulsion power units
- B63H23/14 with unidirectional drive or where reversal is immaterial
- B63H23/16 characterised by provision of reverse drive
- B63H23/18 . . . for alternative use of the propulsion power units
- B63H23/20 with separate forward and astern propulsion power units, e.g. turbines

- B63H23/22 . with non-mechanical gearing
- B63H23/24 . . electric [N: (dynamo-electric machines [H02K](#))] [[C9902](#)]

- [N: **WARNING**
[N1208] This group is not complete pending a reclassification; also documents covered by group [B63H21/17](#) are in this group
]
- B63H23/26 . . fluid

- B63H23/28 . with synchronisation of propulsive elements

- B63H23/30 . characterised by use of clutches

- B63H23/32 . Other parts
- B63H23/32B . . [N: Bearings or seals specially adapted for propeller shafts] [[C9712](#)]
- B63H23/32B8 . . . [N: Water lubricated bearings] [N1207]
- B63H23/34 . . Propeller shafts; Paddle-wheel shafts; Attachment of propellers on shafts (shafts in general [F16C](#); attachment of a member on a shaft in general [F16D1/06](#))
- B63H23/35 . . . Shaft braking or locking, i.e. means to slow or stop the rotation of the propeller shaft or to prevent the shaft from initial rotation [[N1202](#)]

- [N: **WARNING**
[N1202] This group is not complete pending a reclassification; for documents published before 01.01.2012, see also group [B63H23/34](#)
]

- B63H23/36 . . . Shaft tubes (propeller-shaft tunnels [B63B11/06](#); shaft-tube seals [F16J](#)) [[C9601](#)]

- B63H25/00** **Steering; Slowing-down otherwise than by use of propulsive elements** (using adjustably-mounted propeller ducts or rings for steering [B63H5/14](#); using movably-installed outboard propulsion units [B63H20/00](#)); **Dynamic anchoring, i.e. positioning vessels by means of main or auxiliary propulsive elements** (anchoring, other than dynamic [B63B21/00](#); equipment to decrease pitch, roll or like unwanted vessel movements by auxiliary jets or propellers [B63B39/08](#); [N: systems for waterborne vessel position control G05, e.g. [G05D1/00](#)]) [[C1002](#)]

- [N: **WARNING** [[M1207](#)]
This group is pending a reorganisation; also documents covered by group [B63H25/02](#), and subgroups are within this group
]

- B63H25/02 . Initiating means for steering, [N: for slowing down, otherwise than by use of propulsive elements, or for dynamic anchoring] [[M1207](#)]

- [N: **WARNING** [[M1207](#)]
[B63H25/02](#) and subgroups are not complete in view of initiating means for slowing down or for dynamic anchoring, pending a reorganisation; see also group [B63H25/00](#)
]

- B63H25/04 . . . automatic, e.g. reacting to compass

- B63H25/06 . Steering by rudders (by rudders carrying propellers [B63H25/42](#))
- B63H25/08 . . . Steering gear
- B63H25/10 with mechanical transmission
- B63H25/12 with fluid transmission
- B63H25/14 power assisted; power driven, i.e. using steering engine
- B63H25/16 with alternative muscle or power operated steering
- B63H25/18 Transmitting of movement of initiating means to steering engine
- B63H25/20 by mechanical means
- B63H25/22 by fluid means
- B63H25/24 by electrical means
- B63H25/26 Steering engines [[C9601](#)]
- B63H25/28 of fluid type
- B63H25/30 hydraulic
- B63H25/32 steam
- B63H25/34 Transmitting of movement of engine to rudder, e.g. using quadrants, brakes
- B63H25/36 . . . Rudder-position indicators
- B63H25/38 . . . Rudders (stern posts [B63B3/40](#); [N: rudders mounted on housing of outboard motors [B63H20/34](#); rudders carrying propellers [B63H25/42](#); rudders carrying jets [B63H25/46](#)]) [[C1002](#)]
- B63H25/38B [N: with flaps]
- B63H25/38M [N: movable otherwise than for steering purposes; Changing geometry]
- B63H25/38M2 [N: with deflecting means able to reverse the water stream direction] [[N1204](#)]
- B63H25/40 using Magnus effect

- B63H25/42 . Steering or dynamic anchoring by propulsive elements (by jets [B63H25/46](#)); Steering

or dynamic anchoring by propellers used therefor only; Steering or dynamic anchoring by rudders carrying propellers [C1002]

[N: **WARNING** [M1208] [M1207]

This group is not complete as to rudders carrying propellers, pending a reorganisation; see also [B63H5/125](#), and [B63H21/26](#) and subgroups - this group is pending a reorganisation; also documents covered by groups [B63H5/125](#), and subgroups, and by [B63B20/00](#), and subgroups are within this group]
]

[B63H25/44](#) . Steering or slowing-down by extensible flaps or the like

[B63H25/46](#) . Steering or dynamic anchoring by jets [N: or by rudders carrying jets (steering or dynamic anchoring by deflecting or directing main propulsion jets [B63H11/00](#))] [C1002]

[N: **WARNING** [N1002]

This group is no complete as to rudders carrying jets, pending a reclassification; see also [B63H20/00](#) and subgroups
]

[B63H25/48](#) . Steering or slowing-down by deflection of propeller slipstream otherwise than by rudder

[B63H25/50](#) . Slowing-down means not otherwise provided for

[B63H25/52](#) . Parts for steering not otherwise provided for