

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING (NOTES omitted)

TRANSPORTING

B63 SHIPS OR OTHER WATERBORNE VESSELS; RELATED EQUIPMENT

B63H MARINE PROPULSION OR STEERING (propulsion of air-cushion vehicles [B60V 1/14](#); specially adapted for submarines, other than nuclear propulsion, [B63G](#); specially adapted for torpedoes [F42B 19/00](#))

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 Propulsive elements directly acting on water (jet propulsion B63H 11/00)</p> <p>2001/005 . {using Magnus effect}</p> <p>1/02 . of rotary type</p> <p>1/04 . . with rotation axis substantially at right angles to propulsive direction</p> <p>2001/045 . . . {with partially immersed nutating or undulated disks, e.g. wobble plates}</p> <p>1/06 . . . with adjustable vanes or blades</p> <p>1/08 with cyclic adjustment</p> <p>1/10 of Voith Schneider type, i.e. with blades extending axially from a disc-shaped rotary body</p> <p>2001/105 {with non-mechanical control of individual blades, e.g. electric or hydraulic control}</p> <p>1/12 . . with rotation axis substantially in propulsive direction</p> <p>2001/122 . . . {Single or multiple threaded helicoidal screws, or the like, comprising foils extending over a substantial angle; Archimedean screws}</p> <p>2001/125 {with helicoidal foils projecting from outside surfaces of floating rotatable bodies, e.g. rotatable, cylindrical bodies}</p> <p>2001/127 {with helicoidal foils projecting from inside surfaces of rotating shrouds; Archimedean screws}</p> <p>1/14 . . . Propellers (pitch changing B63H 3/00)</p> <p>2001/145 {comprising blades of two or more different types, e.g. different lengths}</p> <p>1/15 having vibration damping means</p> <p>1/16 having a shrouding ring attached to blades</p> <p>2001/165 {Hubless propellers, e.g. peripherally driven shrouds with blades projecting from the shrouds' inside surfaces}</p> <p>1/18 with means for diminishing cavitation, e.g. supercavitation</p>	<p>2001/185 {Surfacing propellers, i.e. propellers specially adapted for operation at the water surface, with blades incompletely submerged, or piercing the water surface from above in the course of each revolution}</p> <p>1/20 Hubs; Blade connections</p> <p>1/22 the blades being foldable</p> <p>1/24 automatically foldable or unfoldable</p> <p>1/26 Blades</p> <p>1/265 {each blade being constituted by a surface enclosing an empty space, e.g. forming a closed loop}</p> <p>1/28 Other means for improving propeller efficiency</p> <p>2001/283 {Propeller hub caps with fins having a pitch different from pitch of propeller blades, or a helix hand opposed to the propellers' helix hand}</p> <p>2001/286 {Injection of gas into fluid flow to propellers, or around propeller blades}</p> <p>1/30 . . of non-rotary type</p> <p>1/32 . . Flaps, pistons, or the like, reciprocating in propulsive direction</p> <p>1/34 . . of endless-track type</p> <p>2001/342 . . . {with tracks substantially parallel to propulsive direction}</p> <p>2001/344 {having paddles mounted in fixed relation to tracks, or to track members}</p> <p>2001/346 {having paddles movably mounted on the track or on track members, e.g. articulated, or with means for cyclically controlling the paddles' angular position or orientation}</p> <p>2001/348 . . . {with tracks oriented transverse to propulsive direction}</p> <p>1/36 . . swinging sideways, e.g. fishtail type</p> <p>1/37 . . Moving-wave propellers, i.e. wherein the propelling means comprise a flexible undulating structure</p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- 1/38 . characterised solely by flotation properties, e.g. drums
- 3/00 Propeller-blade pitch changing** {(aircraft propellers [B64C 11/30](#); rotors of turbines [F01D 7/00](#); axial wind motors [F03D 7/022](#); axial-flow pumps [F04D 29/00](#))}
- 3/002 . {with individually adjustable blades}
- 2003/004 . {comprising means for locking blades in position}
- 2003/006 . {Detecting or transmitting propeller-blade pitch angle}
- 3/008 . {characterised by self-adjusting pitch, e.g. by means of springs, centrifugal forces, hydrodynamic forces}
- 3/02 . actuated by control element coaxial with propeller shaft, e.g. the control element being rotary {([B63H 3/002](#) takes precedence, fluid actuated [B63H 3/081](#))}
- 3/04 . . the control element being reciprocable
- 3/06 . characterised by use of non-mechanical actuating means, e.g. electrical ([B63H 3/002](#) takes precedence)
- 3/08 . . fluid
- 3/081 . . . {actuated by control element coaxial with the propeller shaft}
- 3/082 {the control element being axially reciprocable}
- 2003/084 {with annular cylinder and piston}
- 2003/085 {the control element having means for preventing rotation together with the propeller}
- 2003/087 . . . {using gaseous fluids, e.g. steam or air}
- 2003/088 . . . {characterised by supply of fluid actuating medium to control element, e.g. of hydraulic fluid to actuator co-rotating with the propeller}
- 3/10 . characterised by having pitch control conjoint with propulsion plant control
- 3/12 . the pitch being adjustable only when propeller is stationary ([B63H 3/002](#) takes precedence)
- 5/00 Arrangements on vessels of propulsion elements directly acting on water**
- 2005/005 . {Front propulsors, i.e. propellers, paddle wheels, or the like substantially arranged ahead of the vessels' midship section}
- 5/02 . of paddle wheels, e.g. of stern wheels
- 2005/025 . . {of Voith Schneider type}
- 5/03 . . 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
- 5/04 . . with stationary water-guiding elements
- 5/07 . of propellers (forming part of outboard units {or Z-drives} [B63H 20/00](#))
- 2005/075 . . {using non-azimuthing podded propulsor units, i.e. podded units without means for rotation about a vertical axis, e.g. rigidly connected to the hull}
- 5/08 . . of more than one propeller
- 5/10 . . . of coaxial type, e.g. of counter-rotative type
- 2005/103 {of co-rotative type, i.e. rotating in the same direction, e.g. twin propellers}
- 2005/106 {with drive shafts of second or further propellers co-axially passing through hub of first propeller, e.g. counter-rotating tandem propellers with co-axial drive shafts}
- 5/125 . . movably mounted with respect to hull, e.g. adjustable in direction {, e.g. podded azimuthing thrusters}{(outboard units or Z-drives [B63H 20/00](#); } movably mounted for steering purposes only, {rudders carrying propellers} [B63H 25/42](#))}
- 5/1252 . . . {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}
- 2005/1254 . . . {Podded azimuthing thrusters, i.e. podded thruster units arranged inboard for rotation about vertical axis}
- 2005/1256 {with mechanical power transmission to propellers}
- 2005/1258 {with electric power transmission to propellers, i.e. with integrated electric propeller motors}
- 5/14 . . characterised by being mounted in non-rotating ducts or rings, e.g. adjustable for steering purpose (shrouding ring attached to blades [B63H 1/16](#); jet propulsion [B63H 11/00](#))
- 5/15 . . . Nozzles, e.g. Kort-type
- 5/16 . . characterised by being mounted in recesses; with stationary water-guiding elements; Means to prevent fouling of the propeller, e.g. guards, cages or screens
- 5/165 . . . {Propeller guards, line cutters or other means for protecting propellers or rudders}
- 5/18 . . of emergency propellers, e.g. arranged at the side of the vessel
- 5/20 . . . movable from a working position to a non-working position {(movable arrangements of propellers in general [B63H 5/125](#); outboard propulsion units in general [B63H 20/00](#); steering or dynamic anchoring by propellers used therefore only, or by rudders carrying propellers [B63H 25/42](#))}
- Propulsion using air or wind**
- 7/00 Propulsion directly actuated on air** (jet propulsion [B63H 11/00](#))
- 7/02 . using propellers
- 8/00 Sail or rigging arrangements specially adapted for water sports boards, e.g. for windsurfing or kitesurfing**
- 8/10 . Kite-sails; Kite-wings; Control thereof; Safety means therefor
- 8/12 . . Kites with inflatable closed compartments
- 8/14 . . Ram-air kites, i.e. kites at least partly inflated by air entering their leading edges during use
- 8/16 . . Control arrangements, e.g. control bars or control lines
- 8/18 . . Arrangements for connecting the user to a kite-sail; Kite-safety means, e.g. chicken loops, safety leashes or quick release mechanisms
- 8/20 . Rigging arrangements involving masts, e.g. for windsurfing
- 8/21 . . Wishbones
- 8/22 . . for connecting wishbones to the mast
- 8/23 . . for tensioning or trimming the clew of the sail, e.g. outhaul trimmers
- 8/24 . . Arrangements for connecting the rigging to a board

8/25	. . Arrangements for connecting the sail to a mast foot, e.g. downhaul tensioners or mast foot extensions	9/1007	. . . . {Trapeze systems (harnesses for windsurfers B63H 8/54 , B63H 8/56)}
8/40	. Arrangements for improving or maintaining the aerodynamic profile of sails, e.g. cambers, battens or foil profiles	9/1014	. . . . . {with elastic connection to harnesses}
8/50	. Accessories, e.g. repair kits or kite launching aids	9/1021	. . . . . {Reefing}
8/52	. . Handheld cleats, cams or hooks for tensioning the downhaul or outhaul of a windsurfing sail	9/1028	. . . . . {by furling around stays}
8/54	. . Arrangements for connecting the user or the harness to the wishbone, e.g. trapeze lines or handgrips	9/1035	. . . . . {by furling around or inside the mast}
8/56	. . Devices to distribute the user's load, e.g. harnesses	9/1042	. . . . . {by furling around or inside the boom}
8/58	. . . Spreader bars; Hook connection arrangements	2009/105	. . . . . {using drives for actuating reefing mechanism, e.g. roll reefing drives}
8/70	. Arrangements for handling, stowing or transport thereof	2009/1057	. . . . . {using sheaves being friction driven by endless ropes or by ropes having two free ends}
9/00	Marine propulsion provided directly by wind power (wind-motors driving underwater propulsive elements B63H 13/00)	2009/1064	. . . . . {using drums driven by winding or unwinding single ropes onto or from the drums}
9/02	. using Magnus effect	9/1071	. . . . {Spinnaker poles or rigging, e.g. combined with spinnaker handling}
9/04	. using sails or like wind-catching surfaces (sail or rigging arrangements specially adapted for water sports boards, e.g. for windsurfing or kitesurfing B63H 8/00)	9/1078	. . . . {Boom brakes}
9/06	. . Types of sail; Constructional features of sails; Arrangements thereof on vessels	9/1085	. . . . {Boom vang}
9/061	. . . Rigid sails; Aerofoil sails	9/1092	. . . . {Means for stowing, or securing sails when not in use (B63H 9/1021 takes precedence)}
9/0615	. . . . {Inflatable aerofoil sails}	11/00	Marine propulsion by water jets
9/0621	. . . . {Rigid sails comprising one or more pivotally supported panels}	2011/002	. {using Coanda effect, i.e. the tendency of fluid jets to be attracted to nearby surfaces}
9/0628	. . . . . {the panels being pivotable about horizontal axes}	2011/004	. {using the eductor or injector pump principle, e.g. jets with by-pass fluid paths}
9/0635	. . . . . {the panels being pivotable about vertical axes}	2011/006	. {with propulsive medium supplied from sources external to propelled vessel, e.g. water from public water supply}
9/065	. . . Battens (for water sports board sails B63H 8/40)	2011/008	. {Arrangements of two or more jet units}
9/067	. . . Sails characterised by their construction or manufacturing process	11/01	. having means to prevent foreign material from clogging fluid passage way
9/0671	. . . . {Moulded sails}	11/02	. the propulsive medium being ambient water
9/0673	. . . . {Flying sails, e.g. spinnakers or gennakers}	11/025	. . {by means of magneto-hydro-dynamic forces}
9/0678	. . . . {Laminated sails}	11/04	. . by means of pumps
9/068	. . . Sails pivotally mounted at mast tip	2011/043	. . . {with means for adjusting or varying pump inlets, e.g. means for varying inlet cross section area}
9/069	. . . Kite-sails for vessels	2011/046	. . . {comprising means for varying pump characteristics, e.g. rotary pumps with variable pitch impellers, or adjustable stators}
9/071	. . . . for use in combination with other propulsion means, e.g. for improved fuel economy	11/06	. . . of reciprocating type
9/072	. . . . Control arrangements, e.g. for launching or recovery	11/08	. . . of rotary type
9/08	. . Connections of sails to masts, spars, or the like	2011/081	. . . . {with axial flow, i.e. the axis of rotation being parallel to the flow direction}
2009/082	. . . {Booms, or the like}	2011/082	. . . . {with combined or mixed flow, i.e. the flow direction being a combination of centrifugal flow and non-centrifugal flow, e.g. centripetal or axial flow}
2009/084	. . . {Gooseneck bearings, i.e. bearings for pivotal support of booms on masts}	2011/084	. . . . {with two or more pump stages}
2009/086	. . . {by sliders, i.e. by shoes sliding in, or guided by channels, tracks or rails; for connecting luffs, leeches, battens, or the like to masts, spars or booms}	2011/085	. . . . . {having counter-rotating impellers}
2009/088	. . . {Means for tensioning sheets, or other running rigging, adapted for being guided on rails, or the like mounted on deck, e.g. travellers or carriages with pulleys}	2011/087	. . . . . {with radial flow}
9/10	. . . Running rigging, e.g. reefing equipment (staying of masts B63B 15/02)	2011/088	. . . . . {using shear forces, e.g. disc pumps or Tesla pumps}
		11/09	. . . by means of pressure pulses applied to a column of liquid, e.g. by ignition of an air/gas or vapour mixture
		11/10	. . having means for deflecting jet or influencing cross-section thereof
		11/101	. . . {having means for deflecting jet into a propulsive direction substantially parallel to the plane of the pump outlet opening}

<p>11/102 {the inlet opening and the outlet opening of the pump being substantially coplanar}</p> <p>11/103 . . . having means to increase efficiency of propulsive fluid, e.g. discharge pipe provided with means to improve the fluid flow</p> <p>11/107 . . . Direction control of propulsive fluid {(B63H 11/101 takes precedence)}</p> <p>11/11 with bucket or clamshell-type reversing means</p> <p>11/113 Pivoted outlet</p> <p>11/117 Pivoted vane</p> <p>11/12 . the propulsive medium being steam or other gas</p> <p>11/14 . . the gas being produced by combustion</p> <p>11/16 . . the gas being produced by other chemical processes</p> <p>13/00 Marine propulsion by wind motors driving water-engaging propulsive elements</p> <hr/> <p>15/00 Marine propulsion by use of vessel-mounted driving mechanisms co-operating with anchored chains or the like</p> <p>16/00 Marine propulsion by muscle power</p> <p>2016/005 . {used on vessels dynamically supported, or lifted out of the water by hydrofoils}</p> <p>16/02 . Movable thwarts; Footrests</p> <p>16/04 . Oars; Sculls; Paddles; Poles</p> <p>2016/043 . . {Stop sleeves or collars for positioning oars in rowlocks, e.g. adjustable}</p> <p>2016/046 . . {Oars for single-oar sculling, i.e. for propelling boats by swinging single stern-mounted oars from side to side; Use or arrangements thereof on boats}</p> <p>16/06 . Rowlocks; Mountings therefor</p> <p>2016/063 . . {Rowlocks mounted on movable support structures}</p> <p>16/067 . . Rowlocks mounted on a structure extending beyond the gunwale of the vessel</p> <p>16/073 . . having oar shaft restraining means</p> <p>16/08 . Other apparatus for converting muscle power into propulsive effort</p> <p>2016/085 . . {comprising means for transmitting muscular power applied in oscillatory or rotary manner to a rotary input shaft of a reversing transmission, e.g. alternatively allowing for ahead or astern propulsion}</p> <p>16/10 . . for bow-facing rowing</p> <p>16/102 . . . {by using an inverting mechanism between the handgrip and the blade, e.g. a toothed transmission}</p> <p>16/105 {the mechanism having articulated rods}</p> <p>16/107 . . . {by placing the fulcrum outside the segment defined by handgrip and blade}</p>	<p>16/12 . . {using hand levers, cranks, pedals, or the like, e.g. water cycles, boats propelled by boat-mounted pedal cycles}</p> <p>WARNING</p> <p>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 B63H 16/16 - B63H 16/20</p> <p>16/14 . . . {for propelled drive}</p> <p>WARNING</p> <p>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 B63H 16/16 - B63H 16/20</p> <p>16/16 . . using reciprocating pull cable, i.e. a strand-like member movable alternately backward and forward</p> <p>2016/165 . . . {comprising means for transforming oscillating movement into rotary movement, e.g. for driving propeller shafts}</p> <p>16/18 . . using sliding {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</p> <p>2016/185 . . . {comprising means for transforming oscillating movement into rotary movement, e.g. for driving propeller shafts}</p> <p>16/20 . . using rotary cranking arm</p> <p>2016/202 . . . {specially adapted or arranged for being actuated by the feet of the user, e.g. using bicycle-like pedals}</p> <p>2016/205 {making use of standard bicycles}</p> <p>2016/207 {without wheels}</p> <p>19/00 Marine propulsion not otherwise provided for</p> <p>19/02 . by using energy derived from movement of ambient water, e.g. from rolling or pitching of vessels</p> <p>19/04 . . propelled by water current</p> <p>19/06 . by discharging gas into ambient water</p> <p>19/08 . by direct engagement with water-bed or ground</p> <p>20/00 Outboard propulsion units, e.g. outboard motors or Z-drives; Arrangements thereof on vessels</p> <p>20/001 . {Arrangements, apparatus and methods for handling fluids used in outboard drives (for handling exhaust gas B63H 20/24; for handling cooling-water B63H 20/28; cooling outboard marine engines F01P 3/202; air intakes for outboard marine engines F02M 35/167)}</p> <p>20/002 . . {for handling lubrication liquids (in engines, e.g. outboard marine engines, F01M)}</p> <p>2020/003 . {Arrangements of two, or more outboard propulsion units}</p> <p>2020/005 . {Arrangements of two or more propellers, or the like on single outboard propulsion units}</p> <p>2020/006 . . {of coaxial type, e.g. of counter-rotative type}</p> <p>20/007 . {Trolling propulsion units (trolling plates for slowing down B63H 25/50; dynamo-electric machines of trolling units H02K)}</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

2020/008	. {Tools, specially adapted for maintenance, mounting, repair, or the like of outboard propulsion units, e.g. of outboard motors or Z-drives}	20/36	. Transporting or testing stands { (hand carts for transporting outboard units B62B ; measuring torque G01L 3/00 , measuring thrust of propellers G01L 5/133 , testing in general G01M); Use of outboard propulsion units as pumps}; Protection of power legs {, e.g. when not in use}
20/02	. Mounting of propulsion units (B63H 20/08 takes precedence)		
2020/025	. . {Sealings specially adapted for mountings of outboard drive units; Arrangements thereof, e.g. for transom penetrations}	21/00	Use of propulsion power plant or units on vessels
20/04	. . in a well		
20/06	. . on an intermediate support		
20/08	. Means enabling movement of the position of the propulsion element, e.g. for trim, tilt or steering; Control of trim or tilt (initiating means for steering B63H 25/02)		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
20/10	. . Means enabling trim or tilt, or lifting of the propulsion element when an obstruction is hit; Control of trim or tilt	2021/003	. {the power plant using fuel cells for energy supply or accumulation, e.g. for buffering photovoltaic energy}
2020/103	. . . {using a flexible member for enabling or controlling tilt or lifting, e.g. a cable}	2021/006	. {the vessel being driven by hot gas positive-displacement engine plants of closed-cycle type, e.g. Stirling engines}
20/106	. . . {Means enabling lifting of the propulsion element in a substantially vertical, linearly sliding movement}	21/02	. the vessels being steam-driven (B63H 21/18 takes precedence)
20/12	. . Means enabling steering	21/04	. . relating to positive-displacement steam engines
20/14	. Transmission between propulsion power unit and propulsion element	21/06	. . relating to steam turbines
2020/145	. . {comprising means for permitting telescoping movement of components of the outboard propulsion unit, e.g. telescoping movement of power leg}	21/08	. . relating to steam boilers
20/16	. . allowing movement of the propulsion element in a horizontal plane only, e.g. for steering	21/10	. . relating to condensers or engine-cooling fluid heat-exchangers
20/18	. . allowing movement of the propulsion element about a longitudinal axis, e.g. the through transom shaft (B63H 20/22 takes precedence)	21/12	. the vessels being motor-driven (B63H 21/175 , B63H 21/18 take precedence; {cooling circuits with liquid-to-liquid heat-exchange relative to marine vessels F01P 3/207 })
20/20	. . with provision for reverse drive	21/14	. . relating to internal-combustion engines {(of outboard type B63H 20/00)}
20/22	. . allowing movement of the propulsion element about at least a horizontal axis without disconnection of the drive, e.g. using universal joints	21/16	. . relating to gas turbines
20/24	. {Arrangements, apparatus and methods for handling exhaust gas in outboard drives, e.g.} exhaust gas outlets {(in engines, e.g. outboard marine engines, F01N)}	21/165	. . by hydraulic fluid motor, i.e. wherein a liquid under pressure is utilised to rotate the propelling means {(transmission from power plant or unit to propeller using fluid gearing per se B63H 23/26)}
20/245	. . {Exhaust gas outlets (B63H 20/26 takes precedence)}	21/17	. . by electric motor
20/26	. . {Exhaust gas outlets} passing through the propeller or its hub	2021/171	. . . {making use of photovoltaic energy conversion, e.g. using solar panels}
20/28	. {Arrangements, apparatus and methods for handling cooling-water in outboard drives, e.g.} cooling-water intakes {(cooling circuits for outboard marine engines F01P 3/202)}	2021/173	. . . {making use of superconductivity}
20/285	. . {Cooling-water intakes}	21/175	. the vessel being powered by land vehicle supported by vessel
20/30	. . {Cooling-water intakes} for flushing {(circuits for flushing outboard marine engines F01P 3/205)}	21/18	. the vessels being powered by nuclear energy
20/32	. Housings {(air intakes for outboard engines F02M 35/167)}	21/20	. the vessels being powered by combinations of different types of propulsion units
2020/323	. . {Gear cases}	2021/202	. . {of hybrid electric type}
2020/326	. . . {having a dividing plane substantially in plane with the axes of the transmission shafts}	2021/205	. . . {the second power unit being of the internal combustion engine type, or the like, e.g. a Diesel engine}
20/34	. . comprising stabilising fins {, foils, anticavitation plates, splash plates, or rudders (rudders carrying propellers B63H 25/42 ; rudders carrying jets B63H 25/46)}	2021/207	. . . {the second power unit being a gas turbine}
		21/21	. Control means for engine or transmission, specially adapted for use on marine vessels
		21/213	. . {Levers or the like for controlling the engine or the transmission, e.g. single hand control levers}
		2021/216	. . {using electric control means}
		21/22	. the propulsion power units being controlled from exterior of engine room, e.g. from navigation bridge; Arrangements of order telegraphs
		21/24	. {the vessels being small craft, e.g. racing boats}
		21/30	. Mounting of propulsion plant or unit, e.g. for anti-vibration purposes (hull reinforcements therefor B63B 3/70)

21/302	. . {with active vibration damping}	2023/062	. . . {comprising means for simultaneously driving two or more main transmitting elements, e.g. drive shafts}
21/305	. . {with passive vibration damping}	2023/065	. . . . {having means for differentially varying the speed of the main transmitting elements, e.g. of the drive shafts}
2021/307	. . {Arrangements, or mountings of propulsion power plant elements in modular propulsion power units, e.g. using containers}	2023/067	. . . . {the elements being formed by two or more coaxial shafts, e.g. counter-rotating shafts}
21/32	. Arrangements of propulsion power-unit exhaust uptakes; Funnels peculiar to vessels	23/08	. . with provision for reversing drive
21/34	. . having exhaust-gas deflecting means	23/10	. . for transmitting drive from more than one propulsion power unit
21/36	. Covers or casing arranged to protect plant or unit from marine environment	23/12	. . . allowing combined use of the propulsion power units
21/38	. 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 ((in outboard drives B63H 20/001 ;) lubricating or cooling machines or engines in general F01 - F04)	23/14	. . . . with unidirectional drive or where reversal is immaterial
21/383	. . {for handling cooling-water (in outboard drives B63H 20/28 ; in machines or engines in general F01P 3/00)}	23/16	. . . . characterised by provision of reverse drive
21/386	. . {for handling lubrication liquids (in machines or engines in general F01M)}	23/18	. . . for alternative use of the propulsion power units
23/00	Transmitting power from propulsion power plant to propulsive elements (adaptation of transmission to allow adjustment in direction of propellers B63H 5/125 ; transmission between wind motors and propulsive elements B63H 13/00 ; in outboard propulsion units B63H 20/14 ; adaptation of transmission to allow adjustment of location of propellers B63H 20/08)	23/20	. . . . with separate forward and astern propulsion power units, e.g. turbines
2023/005	. {using a drive acting on the periphery of a rotating propulsive element, e.g. on a dented circumferential ring on a propeller, or a propeller acting as rotor of an electric motor}	23/22	. with non-mechanical gearing
23/02	. with mechanical gearing	23/24	. . electric {(dynamo-electric machines H02K)}
2023/0208	. . {by means of endless flexible members}	2023/245	. . . {with two or more electric motors directly acting on a single drive shaft, e.g. plurality of electric rotors mounted on one common shaft, or plurality of electric motors arranged coaxially one behind the other with rotor shafts coupled together}
2023/0216	. . . {by means of belts, or the like}	23/26	. . fluid
2023/0225	. . . . {of grooved belts, i.e. with one or more grooves in longitudinal direction of the belt}	23/28	. with synchronisation of propulsive elements
2023/0233	. . . . {of belts having a toothed contact surface, or regularly spaced bosses, or hollows for slip-less or nearly slip-less meshing with complementary profiled contact surface of a pulley}	23/30	. characterised by use of clutches
2023/0241	. . . . {of V-belts, i.e. belts of tapered cross section}	2023/305	. . {using fluid or semifluid as power transmitting means}
2023/025	. . . {by means of chains}	23/32	. Other parts
2023/0258	. . {comprising gearings with variable gear ratio, other than reversing drives or trolling drives}	23/321	. . {Bearings or seals specially adapted for propeller shafts}
2023/0266	. . . {comprising gearings with automatically variable gear ratio, other than continuously variable transmissions or trolling drives}	2023/322	. . . {Intermediate propeller shaft bearings, e.g. with provisions for shaft alignment}
2023/0275	. . . {comprising means for conveying rotary motion with continuously variable gear ratio, e.g. continuously variable transmissions using endless flexible members}	2023/323	. . . {Bearings for coaxial propeller shafts, e.g. for driving propellers of the counter-rotative type}
2023/0283	. . {using gears having orbital motion}	2023/325	. . . {Thrust bearings, i.e. axial bearings for propeller shafts}
2023/0291	. . {Trolling gears, i.e. mechanical power transmissions comprising controlled slip clutches, e.g. for low speed propulsion}	23/326	. . . {Water lubricated bearings}
23/04	. . the main transmitting element, e.g. shaft, being substantially vertical	2023/327	. . . {Sealings specially adapted for propeller shafts or stern tubes}
23/06	. . for transmitting drive from a single propulsion power unit	2023/328	. . {Marine transmissions characterised by the use of brakes, other than propeller shaft brakes; Brakes therefor}
		23/34	. . Propeller shafts; Paddle-wheel shafts; Attachment of propellers on shafts
		2023/342	. . . {comprising couplings, e.g. resilient couplings; Couplings therefor}
		2023/344	. . . {comprising flexible shafts members}
		2023/346	. . . {comprising hollow shaft members}
		2023/348	. . . {with turning or inching gear, i.e. with means for slowly rotating, or for angularly positioning of shafts or propulsive elements mounted thereon}
		23/35	. . . 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
		23/36	. . Shaft tubes

- 25/00 Steering; Slowing-down otherwise than by use of propulsive elements (using movably-installed outboard propulsion units [B63H 20/00](#)); Dynamic anchoring, i.e. positioning vessels by means of main or auxiliary propulsive elements**
- 2025/005 . {Steering specially adapted for towing trains, tug-barge systems, or the like; Equipment or accessories therefor}
 - 25/02 . Initiating means for steering {, for slowing down, otherwise than by use of propulsive elements, or for dynamic anchoring}
 - 2025/022 . . {Steering wheels; Posts for steering wheels}
 - 2025/024 . . {Handle-bars; Posts for supporting handle-bars, e.g. adjustable posts}
 - 2025/026 . . {using multi-axis control levers, or the like, e.g. joysticks, wherein at least one degree of freedom is employed for steering, slowing down, or dynamic anchoring}
 - 2025/028 . . {using remote control means, e.g. wireless control; Equipment or accessories therefor}
 - 25/04 . . automatic, e.g. reacting to compass
 - 2025/045 . . . {making use of satellite radio beacon positioning systems, e.g. the Global Positioning System [GPS]}
 - 25/06 . Steering by rudders (by rudders carrying propellers [B63H 25/42](#))
 - 2025/063 . . {Arrangements of rudders forward of the propeller position, e.g. of backing rudders; Arrangements of rudders on the forebody of the hull; Steering gear therefor}
 - 2025/066 . . {Arrangements of two or more rudders; Steering gear therefor}
 - 25/08 . . Steering gear
 - 25/10 . . . with mechanical transmission
 - 25/12 . . . with fluid transmission
 - 25/14 . . . power assisted; power driven, i.e. using steering engine
 - 25/16 with alternative muscle or power operated steering
 - 25/18 Transmitting of movement of initiating means to steering engine
 - 25/20 by mechanical means
 - 25/22 by fluid means
 - 25/24 by electrical means
 - 25/26 Steering engines
 - 25/28 of fluid type
 - 25/30 hydraulic
 - 25/32 steam
 - 25/34 Transmitting of movement of engine to rudder, e.g. using quadrants, brakes
 - 25/36 . . Rudder-position indicators
 - 25/38 . . Rudders
 - 25/381 . . . {with flaps}
 - 25/382 . . . {movable otherwise than for steering purposes; Changing geometry}
 - 25/383 {with deflecting means able to reverse the water stream direction}
 - 2025/384 {with means for retracting or lifting}
 - 2025/385 {by pivoting}
 - 2025/386 {by sliding, e.g. telescopic}
 - 2025/387 . . . {comprising two or more rigidly interconnected mutually spaced blades pivotable about a common rudder shaft, e.g. parallel twin blades mounted on a pivotable supporting frame}
 - 2025/388 . . . {with varying angle of attack over the height of the rudder blade, e.g. twisted rudders}
 - 25/40 . . . using Magnus effect
 - 25/42 . Steering or dynamic anchoring by propulsive elements (by jets [B63H 25/46](#)); Steering or dynamic anchoring by propellers used therefor only; Steering or dynamic anchoring by rudders carrying propellers
 - 2025/425 . . {Propulsive elements, other than jets, substantially used for steering or dynamic anchoring only, with means for retracting, or otherwise moving to a rest position outside the water flow around the hull}
 - 25/44 . Steering or slowing-down by extensible flaps or the like
 - 25/46 . Steering or dynamic anchoring by jets {or by rudders carrying jets (steering or dynamic anchoring by deflecting or directing main propulsion jets [B63H 11/00](#))}
 - 2025/465 . . {Jets or thrusters substantially used for steering or dynamic anchoring only, with means for retracting, or otherwise moving to a rest position outside the water flow around the hull}
 - 25/48 . Steering or slowing-down by deflection of propeller slipstream otherwise than by rudder
 - 25/50 . Slowing-down means not otherwise provided for
 - 25/52 . Parts for steering not otherwise provided for