

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.

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

- 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}

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

2020/008	<ul style="list-style-type: none"> • {Tools, specially adapted for maintenance, mounting, repair, or the like of outboard propulsion units, e.g. of outboard motors or Z-drives} 	20/36	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Mounting of propulsion units (B63H 20/08 takes precedence) 		
2020/025	<ul style="list-style-type: none"> • . {Sealings specially adapted for mountings of outboard drive units; Arrangements thereof, e.g. for transom penetrations} 	21/00	<p>Use of propulsion power plant or units on vessels</p> <p>NOTE</p> <p>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</p>
20/04	<ul style="list-style-type: none"> • . in a well 		
20/06	<ul style="list-style-type: none"> • . on an intermediate support 		
20/08	<ul style="list-style-type: none"> • 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) 		
20/10	<ul style="list-style-type: none"> • . Means enabling trim or tilt, or lifting of the propulsion element when an obstruction is hit; Control of trim or tilt 	2021/003	<ul style="list-style-type: none"> • {the power plant using fuel cells for energy supply or accumulation, e.g. for buffering photovoltaic energy}
2020/103	<ul style="list-style-type: none"> • . . {using a flexible member for enabling or controlling tilt or lifting, e.g. a cable} 	2021/006	<ul style="list-style-type: none"> • {the vessel being driven by hot gas positive-displacement engine plants of closed-cycle type, e.g. Stirling engines}
20/106	<ul style="list-style-type: none"> • . . {Means enabling lifting of the propulsion element in a substantially vertical, linearly sliding movement} 	21/02	<ul style="list-style-type: none"> • the vessels being steam-driven (B63H 21/18 takes precedence)
20/12	<ul style="list-style-type: none"> • . Means enabling steering 	21/04	<ul style="list-style-type: none"> • . relating to positive-displacement steam engines
20/14	<ul style="list-style-type: none"> • Transmission between propulsion power unit and propulsion element 	21/06	<ul style="list-style-type: none"> • . relating to steam turbines
2020/145	<ul style="list-style-type: none"> • . {comprising means for permitting telescoping movement of components of the outboard propulsion unit, e.g. telescoping movement of power leg} 	21/08	<ul style="list-style-type: none"> • . relating to steam boilers
20/16	<ul style="list-style-type: none"> • . allowing movement of the propulsion element in a horizontal plane only, e.g. for steering 	21/10	<ul style="list-style-type: none"> • . relating to condensers or engine-cooling fluid heat-exchangers
20/18	<ul style="list-style-type: none"> • . allowing movement of the propulsion element about a longitudinal axis, e.g. the through transom shaft (B63H 20/22 takes precedence) 	21/12	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • . with provision for reverse drive 	21/14	<ul style="list-style-type: none"> • . relating to internal-combustion engines {(of outboard type B63H 20/00)}
20/22	<ul style="list-style-type: none"> • . allowing movement of the propulsion element about at least a horizontal axis without disconnection of the drive, e.g. using universal joints 	21/16	<ul style="list-style-type: none"> • . relating to gas turbines
20/24	<ul style="list-style-type: none"> • {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	<ul style="list-style-type: none"> • . 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	<ul style="list-style-type: none"> • . {Exhaust gas outlets (B63H 20/26 takes precedence)} 	21/17	<ul style="list-style-type: none"> • . by electric motor
20/26	<ul style="list-style-type: none"> • . {Exhaust gas outlets} passing through the propeller or its hub 	2021/171	<ul style="list-style-type: none"> • . . {making use of photovoltaic energy conversion, e.g. using solar panels}
20/28	<ul style="list-style-type: none"> • {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	<ul style="list-style-type: none"> • . . {making use of superconductivity}
20/285	<ul style="list-style-type: none"> • . {Cooling-water intakes} 	21/175	<ul style="list-style-type: none"> • the vessel being powered by land vehicle supported by vessel
20/30	<ul style="list-style-type: none"> • . {Cooling-water intakes} for flushing {(circuits for flushing outboard marine engines F01P 3/205)} 	21/18	<ul style="list-style-type: none"> • the vessels being powered by nuclear energy
20/32	<ul style="list-style-type: none"> • Housings {(air intakes for outboard engines F02M 35/167)} 	21/20	<ul style="list-style-type: none"> • the vessels being powered by combinations of different types of propulsion units
2020/323	<ul style="list-style-type: none"> • . {Gear cases} 	2021/202	<ul style="list-style-type: none"> • . {of hybrid electric type}
2020/326	<ul style="list-style-type: none"> • . . {having a dividing plane substantially in plane with the axes of the transmission shafts} 	2021/205	<ul style="list-style-type: none"> • . . {the second power unit being of the internal combustion engine type, or the like, e.g. a Diesel engine}
20/34	<ul style="list-style-type: none"> • . comprising stabilising fins {, foils, anticavitation plates, splash plates, or rudders (rudders carrying propellers B63H 25/42; rudders carrying jets B63H 25/46)} 	2021/207	<ul style="list-style-type: none"> • . . {the second power unit being a gas turbine}
		21/21	<ul style="list-style-type: none"> • Control means for engine or transmission, specially adapted for use on marine vessels
		21/213	<ul style="list-style-type: none"> • . {Levers or the like for controlling the engine or the transmission, e.g. single hand control levers}
		2021/216	<ul style="list-style-type: none"> • . {using electric control means}
		21/22	<ul style="list-style-type: none"> • the propulsion power units being controlled from exterior of engine room, e.g. from navigation bridge; Arrangements of order telegraphs
		21/24	<ul style="list-style-type: none"> • {the vessels being small craft, e.g. racing boats}
		21/30	<ul style="list-style-type: none"> • 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