

Symbol	Typ	Titel
F	Sektion	SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
F03	Klasse	MACHINES OR ENGINES FOR LIQUIDS (for liquids and elastic fluids F01; positive-displacement machines for liquids F04); WIND, SPRING, OR WEIGHT MOTORS; PRODUCING MECHANICAL POWER OR A REACTIVE PROPULSIVE THRUST, NOT OTHERWISE PROVIDED FOR
F03B	Unterklasse	MACHINES OR ENGINES FOR LIQUIDS (machines or engines for liquids and elastic fluids F01; positive-displacement engines for liquids F03C; positive-displacement machines for liquids F04) <u>Non-positive-displacement machines or engines characterised by specified type, e.g. water turbines (adaptations of machines or engines for special use F03B 13/00; controlling F03B 15/00)</u>
F03B 1/00	Hauptgruppe	Engines of impulse type, i.e. turbines with jets of high-velocity liquid impinging on bladed or like rotors, e.g. Pelton wheels; Parts or details peculiar thereto
F03B 1/02	1-Punkt Untergruppe	. Buckets; Bucket-carrying rotors
F03B 1/04	1-Punkt Untergruppe	. Nozzles (in general B05B); Nozzle-carrying members
F03B 3/00	Hauptgruppe	Machines or engines of reaction type; Parts or details peculiar thereto
F03B 3/02	1-Punkt Untergruppe	. with radial flow at high-pressure side and axial flow at low-pressure side of rotors, e.g. Francis turbines
F03B 3/04	1-Punkt Untergruppe	. with substantially axial flow throughout rotors, e.g. propeller turbines
F03B 3/06	2-Punkt Untergruppe	. . with adjustable blades, e.g. Kaplan turbines
F03B 3/08	1-Punkt Untergruppe	. with pressure/velocity transformation exclusively in rotors
F03B 3/10	1-Punkt Untergruppe	. characterised by having means for functioning alternatively as pumps or turbines
F03B 3/12	1-Punkt Untergruppe	. Blades; Blade-carrying rotors
F03B 3/14	2-Punkt Untergruppe	. . Rotors having adjustable blades
F03B 3/16	1-Punkt Untergruppe	. Stators
F03B 3/18	2-Punkt Untergruppe	. . Stator blades; Guide conduits or vanes, e.g. adjustable
F03B 5/00	Hauptgruppe	Machines or engines characterised by non-bladed rotors, e.g. serrated, using friction
F03B 7/00	Hauptgruppe	Water wheels
F03B 9/00	Hauptgruppe	Endless-chain type machines or engines
F03B 11/00	Hauptgruppe	Parts or details not provided for in, or of interest apart from, groups F03B 1/00-F03B 9/00 (controlling F03B 15/00)
F03B 11/02	1-Punkt Untergruppe	. Casings
F03B 11/04	1-Punkt Untergruppe	. for diminishing cavitation or vibration, e.g. balancing
F03B 11/06	1-Punkt Untergruppe	. Bearing arrangements
F03B 11/08	1-Punkt Untergruppe	. for removing foreign matter, e.g. mud
F03B 13/00	Hauptgruppe	Adaptations of machines or engines for special use; Combinations of machines or engines with driving or driven apparatus (if the apparatus aspects are predominant, <u>see</u> the relevant places for such apparatus, e.g. H02K 7/18); Power stations or aggregates (hydraulic-engineering aspects E02B; incorporating only machines or engines of positive-displacement type F03C)
F03B 13/02	1-Punkt Untergruppe	. Adaptations for drilling wells

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F03B 13/04	1-Punkt Untergruppe	. Adaptations for use in dentistry
F03B 13/06	1-Punkt Untergruppe	. Stations or aggregates of water-storage type (turbines characterised by having means for functioning alternatively as pumps F03B 3/10)
F03B 13/08	1-Punkt Untergruppe	. Machine or engine aggregates in dams or the like; Conduits therefor
F03B 13/10	1-Punkt Untergruppe	. Submerged units incorporating electric generators or motors
F03B 13/12	1-Punkt Untergruppe	. characterised by using wave or tide energy
F03B 13/14	2-Punkt Untergruppe	. . using wave energy [4]
F03B 13/16	3-Punkt Untergruppe	. . . using the relative movement between a wave-operated member and another member [4]
F03B 13/18	4-Punkt Untergruppe wherein the other member is fixed, at least at one point, with respect to the sea bed or shore [4]
F03B 13/20	4-Punkt Untergruppe wherein both members are movable relative to the sea bed or shore [4]
F03B 13/22	3-Punkt Untergruppe	. . . using the flow of water resulting from wave movements, e.g. to drive a hydraulic motor or turbine [4]
F03B 13/24	3-Punkt Untergruppe	. . . to produce a flow of air, e.g. to drive an air turbine [4]
F03B 13/26	2-Punkt Untergruppe	. . using tide energy [4]
F03B 15/00	Hauptgruppe	Controlling (controlling in general G05)
F03B 15/02	1-Punkt Untergruppe	. by varying liquid flow
F03B 15/04	2-Punkt Untergruppe	. . of turbines (rotors having adjustable blades F03B 3/06, F03B 3/14; adjustable guide vanes F03B 3/18; specially adapted for turbines with jets of high-velocity liquid impinging on bladed or like rotors F03B 15/20)
F03B 15/06	3-Punkt Untergruppe	. . . Regulating, i.e. acting automatically
F03B 15/08	4-Punkt Untergruppe by speed, e.g. by measuring electric frequency or liquid flow
F03B 15/10	5-Punkt Untergruppe without retroactive action
F03B 15/12	5-Punkt Untergruppe with retroactive action
F03B 15/14	4-Punkt Untergruppe by or of water level
F03B 15/16	4-Punkt Untergruppe by power output
F03B 15/18	4-Punkt Untergruppe for safety purposes, e.g. preventing overspeed
F03B 15/20	2-Punkt Untergruppe	. . specially adapted for turbines with jets of high-velocity liquid impinging on bladed or like rotors (nozzles F03B 1/04)
F03B 15/22	3-Punkt Untergruppe	. . . for safety purposes
F03B 17/00	Hauptgruppe	Other machines or engines
F03B 17/02	1-Punkt Untergruppe	. using hydrostatic thrust
F03B 17/04	2-Punkt Untergruppe	. . Alleged <u>perpetua mobilia</u>
F03B 17/06	1-Punkt Untergruppe	. using liquid flow, e.g. of swinging-flap type