

SECTION F – MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING

<u>ENGINES OR PUMPS</u>			
F01	MACHINES OR ENGINES IN GENERAL; ENGINE PLANTS IN GENERAL; STEAM ENGINES Error! Bookmark not defined.	F03	MACHINES OR ENGINES FOR LIQUIDS; WIND, SPRING, OR WEIGHT MOTORS; PRODUCING MECHANICAL POWER OR A REACTIVE PROPULSIVE THRUST, NOT OTHERWISE PROVIDED FOR Error! Bookmark not defined.
F01B	Machines or engines, in general or of positive-displacement type, e.g. steam enginesError! Bookmark not defined.	F03B	Machines or engines for liquidsError! Bookmark not defined.
F01C	Rotary-piston or oscillating-piston machines or engines Error! Bookmark not defined.	F03C	Positive-displacement engines driven by liquidsError! Bookmark not defined.
F01D	Non-positive-displacement machines or engines, e.g. steam turbines Error! Bookmark not defined.	F03D	Wind motors Error! Bookmark not defined.
F01K	Steam engine plants; Steam accumulators; Engine plants not otherwise provided for; Engines using special working fluids or cyclesError! Bookmark not defined.	F03G	Spring, weight, inertia, or like motors; Mechanical-power-producing devices or mechanisms, not otherwise provided for or using energy sources not otherwise provided forError! Bookmark not defined.
F01L	Cyclically operating valves for machines or engines Error! Bookmark not defined.	F03H	Producing a reactive propulsive thrust, not otherwise provided for Error! Bookmark not defined.
F01M	Lubricating of machines or engines in general; Lubricating internal-combustion engines; Crankcase ventilating Error! Bookmark not defined.	F04	POSITIVE-DISPLACEMENT MACHINES FOR LIQUIDS; PUMPS FOR LIQUIDS OR ELASTIC FLUIDS Error! Bookmark not defined.
F01N	Gas-flow silencers or exhaust apparatus for machines or engines in general; Gas-flow silencers or exhaust apparatus for internal-combustion engines Error! Bookmark not defined.	F04B	Positive-displacement machines for liquids; Pumps Error! Bookmark not defined.
F01P	Cooling of machines or engines in general; Cooling of internal-combustion enginesError! Bookmark not defined.	F04C	Rotary-piston, or oscillating-piston, positive-displacement machines for liquids; Rotary-piston, or oscillating-piston, positive-displacement pumpsError! Bookmark not defined.
F02	COMBUSTION ENGINES; HOT-GAS OR COMBUSTION-PRODUCT ENGINE PLANTS Error! Bookmark not defined.	F04D	Non-positive-displacement pumpsError! Bookmark not defined.
F02B	Internal-combustion piston engines; Combustion engines in general Error! Bookmark not defined.	F04F	Pumping of fluid by direct contact of another fluid or by using inertia of fluid to be pumped; SiphonsError! Bookmark not defined.
F02C	Gas-turbine plants; Air intakes for jet-propulsion plants; Controlling fuel supply in air-breathing jet-propulsion plants Error! Bookmark not defined.	<u>ENGINEERING IN GENERAL</u>	
F02D	Controlling combustion enginesError! Bookmark not defined.	F15	FLUID-PRESSURE ACTUATORS; HYDRAULICS OR PNEUMATICS IN GENERAL Error! Bookmark not defined.
F02F	Cylinders, pistons, or casings for combustion engines; Arrangements of sealings in combustion engines Error! Bookmark not defined.	F15B	Systems acting by means of fluids in general; Fluid-pressure actuators, e.g. servomotors; Details of fluid-pressure systems, not otherwise provided for Error! Bookmark not defined.
F02G	Hot-gas or combustion-product positive-displacement engine plants; Use of waste heat of combustion engines, not otherwise provided forError! Bookmark not defined.	F15C	Fluid-circuit elements predominantly used for computing or control purposesError! Bookmark not defined.
F02K	Jet-propulsion plants Error! Bookmark not defined.	F15D	Fluid dynamics, i.e. methods or means for influencing the flow of gases or liquidsError! Bookmark not defined.
F02M	Supplying combustion engines in general with combustible mixtures or constituents thereofError! Bookmark not defined.		
F02N	Starting of combustion engines; Starting aids for such engines, not otherwise provided forError! Bookmark not defined.		
F02P	Ignition, other than compression ignition, for internal-combustion engines; Testing of ignition timing in compression-ignition enginesError! Bookmark not defined.		

F16	ENGINEERING ELEMENTS OR UNITS; GENERAL MEASURES FOR PRODUCING AND MAINTAINING EFFECTIVE FUNCTIONING OF MACHINES OR INSTALLATIONS; THERMAL INSULATION IN GENERAL Error! Bookmark not defined.	F21S	Non-portable lighting devices or systems thereof Error! Bookmark not d
F16B	Devices for fastening or securing constructional elements or machine parts together, e.g. nails, bolts, circlips, clamps, clips, wedges; Joints or jointing Error! Bookmark not defined.	F21V	Functional features or details of lighting devices or systems thereof; Structural combinations of lighting devices with other articles, not otherwise provided for Error! Bookmark not defined.
F16C	Shafts; Flexible shafts; Elements of crankshaft mechanisms; Rotary bodies other than gearing elements; Bearings Error! Bookmark not defined.	F21W	Indexing scheme associated with subclasses F21L, F21S and F21V, relating to uses or applications of lighting devices or systems Error! Bookmark not defined.
F16D	Couplings for transmitting rotation; Clutches; Brakes Error! Bookmark not defined.	F21Y	Indexing scheme associated with subclasses F21L, F21S and F21V, relating to the form of the light sources Error! Bookmark not defined.
F16F	Springs; Shock-absorbers; Means for damping vibration Error! Bookmark not defined.	F22	STEAM GENERATION ... Error! Bookmark not defined.
F16G	Belts, cables, or ropes, predominantly used for driving purposes; Chains; Fittings predominantly used therefor Error! Bookmark not defined.	F22B	Methods of steam generation; Steam boilers Error! Bookmark not define
F16H	Gearing Error! Bookmark not defined.	F22D	Preheating, or accumulating preheated, feed-water; Feed-water supply; Controlling water level; Circulating water within boilers Error! Bookmark not defined.
F16J	Pistons; Cylinders; Pressure vessels in general; Sealings Error! Bookmark not defined.	F22G	Superheating of steam Error! Bookmark not defined.
F16K	Valves; Taps; Cocks; Actuating-floats; Devices for venting or aerating Error! Bookmark not defined.	F23	COMBUSTION APPARATUS; COMBUSTION PROCESSES Error! Bookmark not defined.
F16L	Pipes; Joints or fittings for pipes; Supports for pipes, cables or protective tubing; Means for thermal insulation in general Error! Bookmark not defined.	F23B	Methods or apparatus for combustion using only solid fuel Error! Bookmark not defined.
F16M	Frames, casings, or beds, of engines or other machines or apparatus, not specific to an engine, machine, or apparatus provided for elsewhere; Stands or supports Error! Bookmark not defined.	F23C	Methods or apparatus for combustion using fluent fuel Error! Bookmark not defined.
F16N	Lubricating Error! Bookmark not defined.	F23D	Burners Error! Bookmark not defined.
F16P	Safety devices in general . Error! Bookmark not defined.	F23G	Cremation furnaces; Consuming waste by combustion Error! Bookmark not defined.
F16S	Constructional elements in general; Structures built-up from such elements, in general Error! Bookmark not defined.	F23H	Grates; Cleaning or raking grates Error! Bookmark not defined.
F16T	Steam traps or like apparatus for draining-off liquids from enclosures predominantly containing gases or vapours Error! Bookmark not defined.	F23J	Removal or treatment of combustion products or combustion residues; Flues Error! Bookmark not defined.
F17	STORING OR DISTRIBUTING GASES OR LIQUIDS Error! Bookmark not defined.	F23K	Feeding fuel to combustion apparatus Error! Bookmark not defined.
F17B	Gas-holders of variable capacity Error! Bookmark not defined.	F23L	Air supply; Draught-inducing; Supplying non-combustible liquid or gas . Error! Bookmark not defined.
F17C	Vessels for containing or storing compressed, liquefied, or solidified gases; Fixed-capacity gas-holders; Filling vessels with, or discharging from vessels, compressed, liquefied, or solidified gases Error! Bookmark not defined.	F23M	Constructional details of combustion chambers, not otherwise provided for Error! Bookmark not defined.
F17D	Pipe-line systems; Pipe-lines Error! Bookmark not defined.	F23N	Regulating or controlling combustion Error! Bookmark not defined.
		F23Q	Ignition; Extinguishing devices Error! Bookmark not defined.
		F23R	Generating combustion products of high pressure or high velocity, e.g. gas-turbine combustion chambers Error! Bookmark not defined.
		F24	HEATING; RANGES; VENTILATING Error! Bookmark not defined.
	<u>LIGHTING; HEATING</u>	F24B	Domestic stoves or ranges for solid fuels; Implements for use in connection with stoves or ranges Error! Bookmark not defined.
F21	LIGHTING Error! Bookmark not defined.	F24C	Other domestic stoves or ranges; Details of domestic stoves or ranges, of general application Error! Bookmark not d
F21H	Incandescent mantles; Other incandescent bodies heated by combustion Error! Bookmark not defined.	F24D	Domestic- or space-heating systems, e.g. central heating systems; Domestic hot-water supply systems; Elements or components therefor Error! Bookmark not defined
F21K	Light sources not otherwise provided for Error! Bookmark not defined.	F24F	Air-conditioning; Air-humidification; Ventilation; Use of air currents for screening Error! Bookmark not defined.
F21L	Lighting devices or systems thereof, being portable or specially adapted for transportation Error! Bookmark not defined.	F24H	Fluid heaters, e.g. water or air heaters, having heat-generating means, in general Error! Bookmark not defined.

F24J	Production or use of heat not otherwise provided for Error! Bookmark not defined.	F28D	Heat-exchange apparatus, not provided for in another subclass, in which the heat-exchange media do not come into direct contact; Heat storage plants or apparatus in general Error! Bookmark not defined.
F25	REFRIGERATION OR COOLING; COMBINED HEATING AND REFRIGERATION SYSTEMS; HEAT PUMP SYSTEMS; MANUFACTURE OR STORAGE OF ICE; LIQUEFACTION OR SOLIDIFICATION OF GASES Error! Bookmark not defined.	F28F	Details of heat-exchange or heat-transfer apparatus, of general application Error! Bookmark not defined.
F25B	Refrigeration machines, plants, or systems; Combined heating and refrigeration systems; Heat pump systems Error! Bookmark not defined.	F28G	Cleaning of internal or external surfaces of heat-exchange or heat-transfer conduits, e.g. water tubes of boilers..... Error! Bookmark not defined.
F25C	Production, working, storing, or distribution of ice Error! Bookmark not defined.	<u>WEAPONS; BLASTING</u>	
F25D	Refrigerators; Cold rooms; Ice-boxes; Cooling or freezing apparatus not covered by any other subclass..... Error! Bookmark not defined.	F41	WEAPONS Error! Bookmark not defined.
F25J	Liquefaction, solidification, or separation of gases or gaseous mixtures by pressure and cold treatment Error! Bookmark not defined.	F41A	Functional features or details common to both smallarms and ordnance, e.g. cannons; Mountings for smallarms or ordnance Error! Bookmark not defined.
F26	DRYING Error! Bookmark not defined.	F41B	Weapons for projecting missiles without use of explosive or combustible propellant charge; Weapons not otherwise provided for Error! Bookmark not defined.
F26B	Drying solid materials or objects by removing liquid therefrom..... Error! Bookmark not defined.	F41C	Smallarms, e.g. pistols, rifles; Accessories therefor Error! Bookmark not defined.
F27	FURNACES; KILNS; OVENS; RETORTS Error! Bookmark not defined.	F41F	Apparatus for launching projectiles or missiles from barrels, e.g. cannons; Launchers for rockets or torpedoes; Harpoon guns Error! Bookmark not defined.
F27B	Furnaces, kilns, ovens, or retorts in general; Open sintering or like apparatus Error! Bookmark not defined.	F41G	Weapon sights; Aiming..... Error! Bookmark not defined.
F27D	Details or accessories of furnaces, kilns, ovens, or retorts, in so far as they are of kinds occurring in more than one kind of furnace Error! Bookmark not defined.	F41H	Armour; Armoured turrets; Armoured or armed vehicles; Means of attack or defence, e.g. camouflage, in general Error! Bookmark not defined.
F28	HEAT EXCHANGE IN GENERAL Error! Bookmark not defined.	F41J	Targets; Target ranges; Bullet catchers Error! Bookmark not defined.
F28B	Steam or vapour condensers Error! Bookmark not defined.	F42	AMMUNITION; BLASTING Error! Bookmark not defined.
F28C	Heat-exchange apparatus, not provided for in another subclass, in which the heat-exchange media come into direct contact without chemical interaction..... Error! Bookmark not defined.	F42B	Explosive charges, e.g. for blasting; Fireworks; Ammunition Error! Bookmark not defined.
		F42C	Ammunition fuzes; Arming or safety means therefor Error! Bookmark not defined.
		F42D	Blasting Error! Bookmark not defined.
		F99	SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION Error! Bookmark not defined.
		F99Z	Subject matter not otherwise provided for in this section Error! Bookmark not defined.