

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B67 OPENING, CLOSING {OR CLEANING} BOTTLES, JARS OR SIMILAR CONTAINERS; LIQUID HANDLING (nozzles in general [B05B](#); packaging liquids [B65B](#), e.g. [B65B 3/00](#); pumps in general [F04](#); siphons [F04F 10/00](#); valves [F16K](#); handling liquefied gases [F17C](#))

B67D DISPENSING, DELIVERING OR TRANSFERRING LIQUIDS, NOT OTHERWISE PROVIDED FOR (cleaning pipes or tubes or systems of pipes or tubes [B08B 9/02](#); emptying or filling of bottles, jars, cans, casks, barrels, or similar containers, not otherwise provided for [B67C](#); water supply [E03](#); pipe systems [F17D](#); domestic hot-water supply systems [F24D](#); measuring volume, volume flow, mass flow or liquid level, metering by volume [G01F](#); coin-freed or like apparatus [G07F](#))

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.

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| 1/00 | Apparatus or devices for dispensing beverages on draught (B67D 3/00 takes precedence; apparatus for making beverages A47J 31/00) | 1/0018 | {based on the timed opening of a valve} |
| | | 1/0019 | {based on volumetric dosing} |
| 1/0001 | . {by squeezing collapsible or flexible storage containers (B67D 1/0462 takes precedence)} | 1/002 | {based on weighing} |
| 1/0002 | . {specially adapted to be used in microgravity conditions, e.g. in outer space} | 1/0021 | . . {the components being mixed at the time of dispensing, i.e. post-mix dispensers} |
| 1/0003 | . {the beverage being a single liquid (B67D 1/02 , B67D 1/04 take precedence; drinking fountains E03B 9/20)} | 1/0022 | . . . {the apparatus comprising means for automatically controlling the amount to be dispensed} |
| 1/0004 | . . {the beverage being stored in a container, e.g. bottle, cartridge, bag-in-box, bowl} | 1/0023 | {control of the amount of the mixture, i.e. after mixing} |
| 1/0005 | . . . {the apparatus comprising means for automatically controlling the amount to be dispensed} | 1/0024 | {based on the timed opening of a valve} |
| 1/0006 | {based on the timed opening of a valve} | 1/0025 | {based on volumetric dosing} |
| 1/0007 | {based on volumetric dosing} | 1/0026 | {based on weighing} |
| 1/0008 | {based on weighing} | 1/0027 | {control of the amount of one component, the amount of the other component(s) being dependent on that control} |
| 1/0009 | . . {the beverage being stored in an intermediate container connected to a supply} | 1/0028 | {based on the timed opening of a valve} |
| 1/001 | . . . {the apparatus comprising means for automatically controlling the amount to be dispensed} | 1/0029 | {based on volumetric dosing} |
| 1/0011 | {based on the timed opening of a valve} | 1/003 | {by means of a dosing chamber} |
| 1/0012 | {based on volumetric dosing} | 1/0031 | {in the form of a metering pump} |
| 1/0013 | {based on weighing} | 1/0032 | {using flow-rate sensors} |
| 1/0014 | . . {the beverage being supplied from water mains} | 1/0033 | {based on weighing} |
| 1/0015 | . {the beverage being prepared by mixing at least two liquid components} | 1/0034 | {for controlling the amount of each component} |
| 1/0016 | . . {the beverage being stored in an intermediate container before dispensing, i.e. pre-mix dispensers} | 1/0035 | {the controls being based on the same metering technics} |
| 1/0017 | . . . {the apparatus comprising means for automatically controlling the amount to be dispensed} | 1/0036 | {based on the timed opening of valves} |
| | | 1/0037 | {based on volumetric dosing} |
| | | 1/0038 | {based on weighing} |
| | | 1/0039 | {the controls involving at least two different metering technics} |
| | | 1/004 | . . {the diluent being supplied from water mains} |
| | | 1/0041 | . {Fully automated cocktail bars, i.e. apparatuses combining the use of packaged beverages, pre-mix and post-mix dispensers} |

- 1/0042 . {Details of specific parts of the dispensers}
- 1/0043 . . {Mixing devices for liquids}
- 1/0044 . . . {for mixing inside the dispensing nozzle}
- 1/0045 {Venturi arrangements; Aspirators; Eductors}
- 1/0046 {Mixing chambers}
- 1/0047 {with movable parts, e.g. for stirring}
- 1/0048 {with baffles}
- 1/0049 {with means for diverging streams}
- 1/005 {with means for converging streams}
- 1/0051 . . . {for mixing outside the nozzle}
- 1/0052 {by means for directing respective streams together}
- 1/0053 {by stirring in the cup}
- 1/0054 . . . {Recirculation means}
- 1/0055 {with fountain effect}
- 1/0056 {with illumination}
- 1/0057 . . {Carbonators}
- 1/0058 . . . {In-line carbonators}
- 1/0059 {in combination with a mixer tap (constructional features of the tap E03C 1/04)}
- 1/006 . . . {Conventional carbonators}
- 1/0061 . . . {with cooling means}
- 1/0062 {inside the carbonator}
- 1/0063 {Cooling coil}
- 1/0064 {Cold plate}
- 1/0065 {Ice bank}
- 1/0066 {outside the carbonator}
- 1/0067 {Cooling coil}
- 1/0068 {Cooling bath}
- 1/0069 . . . {Details}
- 1/007 {Structure of the carbonating chamber}
- 1/0071 {Carbonating by injecting CO₂ in the liquid}
- 1/0072 {through a diffuser, a bubbler}
- 1/0073 {Carbonating by spraying the liquid}
- 1/0074 {Automatic carbonation control}
- 1/0075 {by sensing gas pressure}
- 1/0076 {by sensing temperature}
- 1/0077 {Carbonator being specially adapted for adding a second gas to the CO₂}
- 1/0078 . . {Ingredient cartridges}
- 1/0079 . . . {having their own dispensing means}
- 1/008 . . . {Gas cartridges or bottles}
- 1/0081 . . {Dispensing valves}
- 1/0082 . . . {entirely mechanical}
- 1/0083 {with means for separately dispensing a single or a mixture of drinks}
- 1/0084 {Hand-held gun type valves}
- 1/0085 . . . {electro-mechanical}
- 1/0086 {Hand-held gun type valves}
- 2001/0087 . . . {being mounted on the dispenser housing}
- 2001/0088 {operated by push buttons}
- 2001/0089 {operated by lever means}
- 2001/009 {operated by cup detection}
- 2001/0091 . {Component storage means}
- 2001/0092 . . {Containers for gas, for, e.g. CO₂, N₂}
- 2001/0093 . {Valves}
- 2001/0094 . . {Valve mountings in dispensers}
- 2001/0095 . {Constructional details}
- 2001/0096 . . {Means for pressurizing liquid}
- 2001/0097 . . . {using a pump}
- 2001/0098 . . . {using a gas}
- 1/02 . Beer engines or like manually-operable pumping apparatus
- 1/025 . . {with means for carbonating the beverage, or for maintaining its carbonation}
- 1/04 . Apparatus utilising compressed air or other gas acting directly or indirectly on beverages in storage containers
- 1/0406 . . {with means for carbonating the beverage, or for maintaining its carbonation (B67D 1/0418 takes precedence)}
- 1/0412 . . {the whole dispensing unit being fixed to the container}
- 1/0418 . . . {comprising a CO₂ cartridge for dispensing and carbonating the beverage}
- 1/0425 . . . {comprising an air pump system}
- 1/0431 {power-operated}
- 1/0437 . . . {comprising a gas pressure space within the container for the liquid}
- 1/0443 . . . {comprising a gas generator (apparatus for generating gases in general B01J 7/00)}
- 1/045 . . {using elastic bags and pistons actuated by air or other gas}
- 1/0456 . . {Siphons, i.e. beverage containers under gas pressure without supply of further pressurised gas during dispensing}
- 1/0462 . . {Squeezing collapsible or flexible beverage containers, e.g. bag-in-box containers}
- 1/0468 . . {comprising means for the recovery of the gas acting on beverages}
- 2001/0475 . . {Type of gas or gas mixture used, other than pure CO₂}
- 2001/0481 . . . {Single inert gas, e.g. N₂}
- 2001/0487 . . . {Mixture of gases, e.g. N₂ + CO₂}
- 2001/0493 {Air}
- 1/06 . Mountings or arrangements of dispensing apparatus in or on shop or bar counters (shop or bar counters per se A47F 9/00)
- 1/07 . Cleaning beverage-dispensing apparatus ((B67D 1/0834, B67D 1/0837 take precedence))
- 2001/075 . . {Sanitising or sterilising the apparatus}
- 1/08 . Details
- 1/0801 . . {of beverage containers, e.g. casks, kegs}
- 1/0802 . . . {Dip tubes}
- 1/0804 . . . {Shape or materials}
- 1/0805 . . . {Openings for filling}
- 1/0807 . . . {Openings for emptying, e.g. taped openings}
- 1/0808 . . . {Closing means, e.g. bungholes, barrel bungs}
- 1/0809 . . . {Opening means, e.g. means for assisting the opening}
- 2001/0811 . . . {provided with coded information}
- 2001/0812 . . . {Bottles, cartridges or similar containers}
- 2001/0814 {for upside down use}
- 2001/0815 {with integral venting tube}
- 2001/0817 {with a venting orifice}
- 2001/0818 {arranged in series}
- 2001/082 {arranged in parallel}
- 2001/0821 {having different compartments for different components}
- 2001/0822 . . . {Pressurised rigid containers, e.g. kegs, figals}
- 2001/0824 {with dip tubes}
- 2001/0825 {details of dip tube}
- 2001/0827 . . . {Bags in box}

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| 2001/0828 | {in pressurised housing} | 1/0884 | {Means for controlling the parameters of the state of the liquid to be dispensed, e.g. temperature, pressure} |
| 1/0829 | . . {Keg connection means} | 1/0885 | {Means for dispensing under specific atmospheric conditions, e.g. under inert gas} |
| 1/0831 | . . . {combined with valves} | 1/0887 | . . . {Sanitary protection means for dispensing nozzles or taps, e.g. outlet closures} |
| 1/0832 | {with two valves disposed concentrically} | 1/0888 | . . {Means comprising electronic circuitry (e.g. control panels, switching or controlling means)} |
| 1/0834 | {and having means for admitting a cleaning fluid} | 1/0889 | . . {Supports} |
| 1/0835 | {with one valve} | 1/0891 | . . . {for the beverage container} |
| 1/0837 | {and having means for admitting a cleaning fluid} | 1/0892 | {the beverage container being stored in a rack or shelf} |
| 1/0838 | {comprising means for preventing blow-out on disassembly of the spear valve} | 1/0894 | . . . {for the vessel to be filled} |
| 1/0839 | . . . {Automatically operating handles for locking or unlocking a connector to or from a keg} | 1/0895 | . . {Heating arrangements} |
| 1/0841 | . . . {Details} | 1/0897 | . . . {located in nozzles} |
| 1/0842 | {Multiple connectors, e.g. for simultaneously connecting several containers} | 1/0898 | . . . {Beer warmers (B67D 1/0897 takes precedence)} |
| 1/0844 | {for containers in crates} | 1/10 | . . Pump mechanism (in general F04) |
| 1/0845 | {Security means} | 1/101 | . . . {of the piston-cylinder type} |
| 1/0847 | {Tamper-evident devices} | 1/102 | {for one liquid component only} |
| 1/0848 | {Locking means} | 1/103 | {the piston being driven by a liquid or a gas} |
| 1/0849 | {provided with means to open the keg valve when gas pressure is applied to it} | 1/104 | {by the liquid to be dispensed} |
| 1/0851 | {composed of a piston and ram assembly, e.g. tappet} | 1/105 | {for two or more components} |
| 1/0852 | {composed of a membrane and ram assembly} | 1/106 | {the piston being driven by a liquid or a gas} |
| 1/0854 | {provided with means to open the keg valve when water pressure is applied to it} | 1/107 | {by one of the components to be dispensed} |
| 1/0855 | . . {concerning the used flowmeter (flowmeter per se G01F 1/00, G01F 3/00)} | 1/108 | . . . {of the peristaltic type} |
| 1/0857 | . . {Cooling arrangements (cooling systems per se F25B)} | 1/12 | . . Flow or pressure control devices or systems {, e.g. valves, gas pressure control, level control in storage containers} |
| 1/0858 | . . . {using compression systems} | 1/1202 | . . . {Flow control, e.g. for controlling total amount or mixture ratio of liquids to be dispensed} |
| 1/0859 | {the evaporator being in direct heat contact with the beverage, e.g. placed inside a beverage container} | 1/1204 | {for ratio control purposes} |
| 1/0861 | {the evaporator acting through an intermediate heat transfer means} | 1/1206 | {Flow detectors} |
| 1/0862 | {in the form of a cold plate or a cooling block} | 1/1209 | {combined with a timer} |
| 1/0864 | {in the form of a cooling bath} | 1/1211 | {Flow rate sensor} |
| 1/0865 | {by circulating a cooling fluid along beverage supply lines, e.g. pythons} | 1/1213 | {combined with a timer} |
| 1/0867 | {the cooling fluid being a liquid} | 1/1215 | {combined with a counter} |
| 1/0868 | {the cooling fluid being a gas} | 1/1218 | {modulating the opening of a valve} |
| 1/0869 | . . . {using solid state elements, e.g. Peltier cells} | 1/122 | {modulating a pumping rate} |
| 1/0871 | . . {Level gauges for beverage storage containers (level indicators in general G01F)} | 1/1222 | {Pressure gauges} |
| 1/0872 | . . {Aesthetics, advertising} | 1/1225 | {Weighing} |
| 1/0874 | . . . {Means for illuminating the handle of taps or faucets} | 1/1227 | {the cup to be filled} |
| 1/0875 | . . . {Means for illuminating the beverage to be dispensed} | 1/1229 | {the storage container} |
| 1/0877 | . . . {Advertising means (advertising in general G09F)} | 1/1231 | {Metering pumps} |
| 1/0878 | . . {Safety, warning or controlling devices (B67D 1/12 takes precedence)} | 1/1234 | {to determine the total amount} |
| 1/0879 | . . . {Doors for protecting the vessel to be filled} | 1/1236 | {comprising means for detecting the size of vessels to be filled} |
| 1/0881 | . . . {Means for counting the doses of dispensed liquid} | 1/1238 | {comprising means for detecting the liquid level in vessels to be filled, e.g. using ultrasonic waves, optical reflexion, probes} |
| 1/0882 | . . . {Devices for controlling the dispensing conditions} | 1/124 | {the flow being started or stopped by means actuated by the vessel to be filled, e.g. by switches, weighing} |
| | | 1/1243 | {comprising flow or pressure sensors, e.g. for controlling pumps} |
| | | 1/1245 | . . . {Change-over devices, i.e. connecting a flow line from an empty container to a full one} |

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| 1/1247 | . . . | {Means for detecting the presence or absence of liquid} | 1/165 | . . . | {and re-injecting them in the dispensing line} |
| 1/125 | . . . | {Safety means, e.g. over-pressure valves} | 3/00 | | Apparatus or devices for controlling flow of liquids under gravity from storage containers for dispensing purposes (separating and dispensing metered quantities of liquids G01F) |
| 1/1252 | . . . | {Gas pressure control means, e.g. for maintaining proper carbonation (for beer engines B67D 1/025)} | 3/0003 | . . . | {provided with automatic fluid control means} |
| 2001/1254 | | {comprising means for making a mixture of gases} | 3/0006 | . . . | {responsive to coded information provided on the neck or spout of the storage container, e.g. bar-code, magnets or transponder} |
| 1/1256 | . . . | {Anti-dripping devices (drip trays B67D 1/16)} | 3/0009 | . . . | {provided with cooling arrangements (cooling per se F25)} |
| 2001/1259 | . . . | {Fluid level control devices} | 3/0012 | . . . | {provided with mixing devices} |
| 2001/1261 | | {the level being detected mechanically} | 3/0016 | . . . | {Mixing valves or taps} |
| 2001/1263 | | {the level being detected electrically} | 3/0019 | . . . | {using ingredient cartridges} |
| 2001/1265 | | {Pressure switches} | 3/0022 | . . . | {provided with heating arrangements} |
| 2001/1268 | | {Capacitors} | 3/0025 | . . . | {provided with dispensing valves actuated by the receptacle to be filled (B67D 3/02 takes precedence)} |
| 1/127 | . . . | {Froth control (B67D 1/1411 takes precedence)} | 3/0029 | . . . | {provided with holders for bottles or similar containers} |
| 1/1272 | | {preventing froth} | 3/0032 | . . . | {the bottle or container being held upside down and provided with a closure, e.g. a cap, adapted to cooperate with a feed tube} |
| 1/1275 | | {promoting froth} | 3/0035 | . . . | {the bottle or container being held upside down and not provided with a closure, e.g. a bottle screwed onto a base of a dispenser} |
| 1/1277 | . . . | {Flow control valves} | 3/0038 | . . . | {the liquid being stored in an intermediate container prior to dispensing} |
| 1/1279 | | {regulating the flow} | 3/0041 | . . . | {with provisions for metering the liquid to be dispensed} |
| 1/1281 | | {responsive to pressure} | 3/0045 | . . . | {by filling a predetermined volume before dispensing} |
| 1/1284 | . . . | {Ratio control} | 3/0048 | . . . | {using siphoning arrangements} |
| 1/1286 | | {by mechanical construction} | 3/0051 | . . . | {dispensing by tilting} |
| 1/1288 | | {Multi-chamber piston pumps (construction of pumps: B67D 1/10)} | 3/0054 | . . . | {Mounting or arrangements of dispensing apparatus in shops or bar counters} |
| 1/129 | | {Means for changing the ratio by acting on structural parts} | 3/0058 | . . . | {Details} |
| 1/1293 | | {Means for changing the ratio by acting on commands} | 3/0061 | . . . | {of liquid containers, e.g. filling, emptying, closing or opening means} |
| 1/1295 | | {Ratio defined by setting flow controllers} | 3/0064 | . . . | {Dip tubes} |
| 1/1297 | | {Ratio defined by setting of timers} | 3/0067 | . . . | {relating to shape or materials, e.g. bag-in-box packages [BIB], pouches} |
| 1/14 | . . . | Reducing valves or control taps | 3/007 | . . . | {containers with adjustable volume} |
| 1/1405 | | {Control taps} | 3/0074 | . . . | {Safety or warning devices} |
| 1/1411 | | {Means for controlling the build-up of foam in the container to be filled} | 3/0077 | . . . | {Electronic circuitry} |
| 1/1416 | | {comprising foam inducing means} | 3/008 | . . . | {Supports} |
| 1/1422 | | {comprising foam avoiding means} | 3/0083 | . . . | {for the liquid container} |
| 1/1427 | | {by rotating the container to be filled} | 3/0087 | | {the beverage container being stored in a rack or shelf} |
| 1/1433 | | {by delivering the beverage using a helical movement} | 3/009 | . . . | {for the vessel to be filled} |
| 1/1438 | | {comprising a valve shutter movable in a direction parallel to the valve seat, e.g. sliding or rotating} | 3/0093 | . . . | {Level indicators} |
| 1/1444 | | {the valve shutter being rotated} | 3/0096 | . . . | {Aesthetics, advertising} |
| 1/145 | | {comprising a valve shutter movable in a direction perpendicular to the valve seat} | 3/02 | . . . | Liquid-dispensing valves having operating members arranged to be pressed upwards, e.g. by the rims of receptacles held below the delivery orifice |
| 1/1455 | | {the valve shutter being opened in the same direction as the liquid flow} | 3/04 | . . . | Liquid-dispensing taps or cocks adapted to seal and open tapping holes of casks, e.g. for beer (closures with filling and discharging devices for containers B65D 47/00)} |
| 1/1461 | | {the valve shutter being integral with a compensator} | 3/041 | . . . | {operated by pinching action on flexible tubes} |
| 1/1466 | | {the valve shutter being opened in a direction opposite to the liquid flow} | 3/042 | . . . | {operated by deforming a membrane-like closing element} |
| 1/1472 | | {the valve shutter being integral with a compensator} | | | |
| 1/1477 | | {Devices for assisting tap handling, e.g. levers} | | | |
| 2001/1483 | | {electrically or electro-mechanically operated} | | | |
| 2001/1488 | | {pneumatically operated} | | | |
| 2001/1494 | | {Taps with means for adjusting the position of a compensator from outside} | | | |
| 1/16 | . . | Devices for collecting spilled beverages | | | |

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| 3/043 | . . {with a closing element having a linear movement, in a direction perpendicular to the seat} | 2007/0403 | . . . {Fuelling robots} |
| 3/044 | . . . {and venting means operated automatically with the tap} | 2007/0405 | {Opening devices} |
| 3/045 | . . {with a closing element having a linear movement, in a direction parallel to the seat} | 2007/0407 | {for fuel tank flaps} |
| 3/046 | . . . {and venting means operated automatically with the tap} | 2007/0409 | {using vacuum cups} |
| 3/047 | . . {with a closing element having a rotational movement} | 2007/0411 | {using grippers} |
| 3/048 | . . . {and venting means operated automatically with the tap} | 2007/0413 | {using air blast} |
| 7/00 | Apparatus or devices for transferring liquids from bulk storage containers or reservoirs into vehicles or into portable containers, e.g. for retail sale purposes (general disposition of plant in stations for supplying fuel to vehicles B60S 5/02 ; for filling or emptying locomotive water tanks, e.g. water columns, B61K 11/00 ; for refuelling aircraft during flight B64D 39/00 ; liquid- handling ground installations specially adapted for fuelling stationary aircraft B64F 1/28) | 2007/0415 | {for filler caps} |
| 7/002 | . {using articulated pipes} | 2007/0417 | {Manipulator arms} |
| 7/005 | . {Spouts} | 2007/0419 | {Fuelling nozzles} |
| 7/007 | . {using siphoning arrangements} | 2007/0421 | {with locking devices} |
| 7/02 | . for transferring liquids other than fuel or lubricants | 2007/0423 | {Fuelling hoses} |
| 7/0205 | . . {by manually operable pumping apparatus (hand-held apparatus with pumps for dispensing or spraying liquids or fluent materials B05B 11/00)} | 2007/0425 | {comprising a single hose for several fuels} |
| 7/0211 | . . . {with pump locking means} | 2007/0426 | {comprising several hoses for several fuels} |
| 7/0216 | . . {by squeezing collapsible or flexible storage containers (B67D 7/0255 takes precedence; for dispensing beverages on draught B67D 1/0001)} | 2007/0428 | {having devices to avoid a mix up of different fuels} |
| 7/0222 | . . . {the dispensed quantity of liquid being replaced by air sucked through the dispensing opening} | 2007/043 | {Moveable} |
| 7/0227 | . . {by an ejection plunger (B67D 7/0238 takes precedence)} | 2007/0432 | {according to a planar coordinate system} |
| 7/0233 | . . . {the plunger being gas driven} | 2007/0434 | {with the ability to compensate movements of the car during filling} |
| 7/0238 | . . {utilising compressed air or other gas acting directly or indirectly on liquids in storage containers (for dispensing beverages on draught B67D 1/04)} | 2007/0436 | {according to a spatial coordinate system} |
| 7/0244 | . . . {by using elastic expandable bags} | 2007/0438 | {with the ability to compensate movements of the car during filling} |
| 7/025 | {specially adapted for transferring liquids of high purity} | 2007/044 | . . . {Customer interfaces} |
| 7/0255 | . . . {squeezing collapsible or flexible storage containers (for dispensing beverages on draught B67D 1/0462)} | 2007/0442 | {interface for orders and payments} |
| 7/0261 | {specially adapted for transferring liquids of high purity} | 2007/0444 | . . . {Sensors} |
| 7/0266 | . . . {by gas acting directly on the liquid} | 2007/0446 | {measuring physical properties of the fluid to be dispensed} |
| 7/0272 | {specially adapted for transferring liquids of high purity} | 2007/0448 | {Density} |
| 7/0277 | . . {using negative pressure} | 2007/0449 | {Viscosity} |
| 7/0283 | . . . {specially adapted for transferring liquids of high purity} | 2007/0451 | {Temperature} |
| 7/0288 | . . {Container connection means (for dispensing beverages on draught B67D 1/0829)} | 2007/0453 | {recognising the fuel to be dispensed} |
| 7/0294 | . . . {Combined with valves} | 2007/0455 | {recognising the position} |
| 7/04 | . for transferring fuels, lubricants or mixed fuels and lubricants | 2007/0457 | {of the car} |
| 7/0401 | . . {arrangements for automatically fuelling vehicles, i.e. without human intervention} | 2007/0459 | {by interrogating a transponder} |
| | | 2007/0461 | {by calculating from a reference position, e.g. the car's silhouette, reference marks} |
| | | 2007/0463 | {optically} |
| | | 2007/0465 | {by GPS} |
| | | 2007/0467 | {of the fuel tank flap and/or fuel tank opening} |
| | | 2007/0469 | {by interrogating a transponder} |
| | | 2007/0471 | {by calculating from a reference position, e.g. the car's silhouette, reference marks} |
| | | 2007/0473 | {optically} |
| | | 2007/0474 | {of the filling nozzle relative to the fuel tank opening, e.g. engagement between nozzle and tank opening} |
| | | 7/0476 | . . {Vapour recovery systems} |
| | | 7/0478 | . . . {constructional features or components (vapour recovery nozzles B67D 7/54)} |
| | | 7/048 | {Vapour flow control means, e.g. valves, pumps} |
| | | 7/0482 | {using pumps driven at different flow rates} |
| | | 7/0484 | {Liquid jet pumps, e.g. venturis} |
| | | 7/0486 | {Pumps driven in response to electric signals indicative of pressure, temperature or liquid flow} |

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| 7/0488 | {Means for preventing the formation of condensation on, or for removing condensation from, vapour recovery lines} | 7/263 | {using electrical or electro-mechanical means} |
| 7/049 | {Vapour recovery methods, e.g. condensing the vapour} | 7/266 | {involving digital counting} |
| 7/0492 | {Vapour storing means, e.g. dedicated ullage spaces, separate tanks} | 7/28 | . . . with automatic means for reducing or intermittently interrupting flow before completion of delivery, e.g. to produce dribble feed |
| 2007/0494 | {Means for condensing the vapours and reintroducing them into the storage tanks} | 7/30 | . . . with means for predetermining quantity of liquid to be transferred (B67D 7/10 , B67D 7/14 take precedence) |
| 7/0496 | {Performance test devices therefor} | 7/301 | {using mechanical means (B67D 7/306 takes precedence)} |
| 7/0498 | . . {Arrangements specially adapted for transferring biofuels, e.g. ethanol-gasoline mixture} | 7/302 | {using electrical or electro-mechanical means (B67D 7/307 takes precedence)} |
| 7/06 | . Details or accessories | 7/303 | {involving digital counting} |
| 7/061 | . . {Means for transferring liquids from a chosen level of a storage container} | 7/305 | {in function of money to be spent therefor} |
| 7/062 | . . . {from the free surface level of the liquid} | 7/306 | {using mechanical means} |
| 7/064 | . . {Drive-off preventing means, e.g. in case of non-payment} | 7/307 | {using electrical or electro-mechanical means} |
| 7/065 | . . . {acting on the vehicle} | 7/308 | {involving digital counting} |
| 7/067 | . . . {using communication means} | 7/32 | . . Arrangements of safety or warning devices; Means for preventing unauthorised delivery of liquid |
| 7/068 | . . . {using imaging means, e.g. cameras} | 7/3209 | . . . {relating to spillage or leakage, e.g. spill containments, leak detection (leak detectors for underground fuel dispensing systems G01M 3/2892)} |
| 7/08 | . . Arrangements of devices for controlling, indicating, metering or registering quantity or price of liquid transferred (arrangement of flow- or pressure-control valves B67D 7/36 ; computing, calculating, counting G06 ; coin-freed apparatus for dispensing fluids G07F 13/00 ; prepayment devices for metering liquids G07F 15/00) | 7/3218 | . . . {relating to emergency shut-off means} |
| 7/085 | . . . {Testing or calibrating apparatus therefore (testing or calibrating apparatus for measuring volume flow in general G01F 25/00)} | 7/3227 | . . . {relating to venting of a container during loading or unloading} |
| 7/10 | . . . operated by keys, push-buttons or cash registers | 7/3236 | . . . {relating to electrostatic charges} |
| 7/103 | {operated by keys} | 7/3245 | . . . {relating to the transfer method} |
| 7/106 | {operated by push-buttons} | 7/3254 | {using a pressurised liquid acting directly or indirectly on the bulk of the liquid to be transferred} |
| 7/12 | . . . operated by movement of delivery hose or nozzle or by devices associated therewith | 7/3263 | {using a pressurised gas acting directly or indirectly on the bulk of the liquid to be transferred (use of compressed air or gas for transferring liquids B67D 7/0238 , B67D 7/72)} |
| 7/14 | . . . responsive to input of recorded programmed information, e.g. on punched cards | 7/3272 | {using pumps} |
| 7/145 | {by wireless communication means, e.g. RF, transponders or the like} | 7/3281 | . . . {Details} |
| 7/16 | . . . Arrangements of liquid meters | 2007/329 | {Function indicator devices} |
| 7/163 | {of fixed measuring chamber type} | 7/34 | . . . Means for preventing unauthorised delivery of liquid |
| 7/166 | {comprising at least two chambers} | 7/342 | {by discriminating the kind of liquid by analysis or by physical properties, e.g. vapour-pressure} |
| 7/18 | of piston type | 7/344 | {by checking a correct coupling or coded information} |
| 7/20 | of rotary type | 7/346 | {by reading a code} |
| 7/22 | . . . Arrangements of indicators or registers (indicating or recording in fluid meters G01F 15/06) | 7/348 | {by interrogating an information transmitter, e.g. a transponder (B67D 7/145 takes precedence)} |
| 7/221 | {using electrical or electro-mechanical means (B67D 7/224 takes precedence)} | 7/36 | . . Arrangements of flow- or pressure-control valves (associated with nozzles B67D 7/42) |
| 7/222 | {involving digital counting} | 7/362 | . . . {combined with over-fill preventing means (indicating or measuring liquid level G01F 23/00 ; level control G05D 9/00)} |
| 7/224 | {involving price indicators} | 7/365 | {using floats} |
| 7/225 | {combined with variators} | 7/367 | {the float acting pneumatically on a shut-off valve} |
| 7/227 | {using electrical or electro-mechanical means} | 7/38 | . . Arrangements of hoses, e.g. operative connection with pump motor (hoses in general F16L 11/00) |
| 7/228 | {using digital counting} | | |
| 7/24 | with means for producing or issuing a receipt or record of sale | | |
| 7/243 | {using electrical or electro-mechanical means} | | |
| 7/246 | {involving digital counting} | | |
| 7/26 | with resetting or zeroing means | | |

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| 7/40 | . . . Suspending, reeling or storing devices (supports for storing lengths of hoses, in general B65H 75/34) | 2007/747 | {involving means responsive to the octane level, e.g. octane sensor, knock engine} |
| 7/403 | {the hose carrier comprising a sliding unit} | 2007/748 | {by mixing fuel with additives, e.g. anti-knocking agents} |
| 7/406 | {the hose carrier comprising a pivoting unit} | 2007/749 | {involving means responsive to the octane level, e.g. octane sensor, knock engine} |
| 7/42 | . . Filling nozzles | 7/76 | . . Arrangements of devices for purifying liquids to be transferred, e.g. of filters, of air or water separators |
| 7/421 | . . . {comprising protective covers, e.g. anti-splash attachments} | 7/763 | . . . {of air separators} |
| 7/423 | . . . {specially adapted for blending several fluids (mixing devices B67D 7/74)} | 7/766 | . . . {of water separators} |
| 7/425 | . . . {including components powered by electricity or light} | 7/78 | . . Arrangements of storage tanks, reservoirs or pipelines |
| 7/426 | . . . {including means for displaying information, e.g. for advertising (B67D 7/425 takes precedence)} | 7/80 | . . Arrangements of heating or cooling devices for liquids to be transferred |
| 7/428 | . . . {for delivering at least two different liquids into separate containers} | 7/82 | . . . Heating only |
| 7/44 | . . . automatically closing | 7/84 | . . Casings, cabinets or frameworks; Trolleys or like movable supports |
| 7/445 | {after a predetermined time} | 7/845 | . . . {Trolleys or like movable supports} |
| 7/46 | when liquid in container to be filled reaches a predetermined level | 7/86 | . . Illuminating arrangements |
| 7/465 | {Electrical probes sensing the level of the liquid} | 9/00 | Apparatus or devices for transferring liquids when loading or unloading ships (ship-based equipment B63B 27/00) |
| 7/48 | by making use of air suction through an opening closed by the rising liquid | 9/02 | . using articulated pipes |
| 7/50 | and provided with an additional hand lever | 99/00 | Subject matter not provided for in other groups of this subclass |
| 7/52 | and provided with additional flow-controlling valve means | 2210/00 | Indexing scheme relating to aspects and details of apparatus or devices for dispensing beverages on draught or for controlling flow of liquids under gravity from storage containers for dispensing purposes |
| 7/54 | . . . with means for preventing escape of liquid or vapour or for recovering escaped liquid or vapour (B67D 7/44 takes precedence) | 2210/00002 | . Purifying means |
| 2007/545 | {Additional means for preventing dispensing of liquid by incorrect sealing engagement with the tank opening of the vapour recovering means, e.g. bellows, shrouds} | 2210/00005 | . . Filters |
| 7/56 | . . Arrangements of flow-indicators, e.g. transparent compartments, windows, rotary vanes (indicating or recording presence, absence or direction of movement G01P 13/00) | 2210/00007 | . . . for gas |
| 7/565 | . . . {for indicating end of flow, e.g. by optical or audible signals} | 2210/0001 | . . . for liquid |
| 7/58 | . . Arrangements of pumps | 2210/00013 | . . Sterilising means |
| 7/60 | . . . manually operable | 2210/00015 | . . . UV radiation |
| 7/62 | . . . power operated | 2210/00018 | . . . Membranes |
| 7/64 | of piston type | 2210/0002 | . . . Distillators |
| 7/645 | {Barrel pumps} | 2210/00023 | . . . Oxygenators |
| 7/66 | of rotary type | 2210/00026 | . . . Heaters |
| 7/68 | . . . submerged in storage tank or reservoir | 2210/00028 | . . Constructional details |
| 7/70 | . . . of two or more pumps in series or parallel | 2210/00031 | . . Housing |
| 7/72 | . . Devices for applying air or other gas pressure for forcing liquid to delivery point | 2210/00034 | . . . Modules |
| 7/725 | . . . {using negative pressure} | 2210/00036 | for use with or in refrigerators |
| 7/74 | . . Devices for mixing two or more different liquids to be transferred (coin-freed apparatus G07F 13/06) | 2210/00039 | . . . Panels |
| 7/741 | . . . {mechanically operated} | 2210/00041 | . . . Doors |
| 7/742 | {involving mechanical counters, e.g. of clock-work type} | 2210/00044 | . . . Insulation |
| 7/743 | . . . {electrically or electro-mechanically operated} | 2210/00047 | . . Piping |
| 7/744 | {involving digital counting} | 2210/00049 | . . . Pipes |
| 2007/745 | . . . {for obtaining fuel of a given octane level} | 2210/00052 | with flow tranquilisers |
| 2007/746 | {by mixing different fuel grades or fuel and oil} | 2210/00055 | with turbulent flow generators, e.g. vortices |
| | | 2210/00057 | adapted for being easily cleaned |
| | | 2210/0006 | . . . Manifolds |
| | | 2210/00062 | . . . Pipe joints |
| | | 2210/00065 | . . related to the use of drinking cups or glasses |
| | | 2210/00068 | . . . Means for filling simultaneously a plurality of cups |
| | | 2210/0007 | . . . For use with partially pre-filled cups |
| | | 2210/00073 | . . . Cup cleaning devices |
| | | 2210/00076 | . . . Cup conveyors |

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- 2210/00078 . . . Cup dispensers
- 2210/00081 . . related to bartenders
- 2210/00083 . . . Access code recognition means
- 2210/00086 . . . Selector circuits
- 2210/00089 . . . Remote control means, e.g. by electromagnetic signals
- 2210/00091 . . . Bar management means
- 2210/00094 . . Ergonomics
- 2210/00097 . . . Handling of storage containers
- 2210/00099 . . Temperature control
- 2210/00102 . . . Heating only
- 2210/00104 . . . Cooling only
- 2210/00107 by spraying fluids on the inner or outer surfaces of the receptacles to be filled
- 2210/0011 The sprayed fluid being a liquid
- 2210/00112 The sprayed fluid being a gas
- 2210/00115 The sprayed fluid being a cryogen
- 2210/00118 . . . Heating and cooling
- 2210/0012 . . related to concentrate handling
- 2210/00123 . . . Preparing a mix of concentrates
- 2210/00125 . . . Treating or conditioning the concentrate, e.g. by heating, freezing
- 2210/00128 . . relating to outdoor use; movable; portable
- 2210/00131 . . . wearable by a person, e.g. as a backpack or helmet
- 2210/00133 . . . wheeled
- 2210/00136 vehicle carried
- 2210/00139 Trolleys
- 2210/00141 . . Other parts
- 2210/00144 . . . Magnets, e.g. used in valves or for stirring
- 2210/00146 . Component storage means
- 2210/00149 . . Fixed containers to be filled in situ
- 2210/00152 . . . Automatically
- 2210/00154 Level detected by a float
- 2210/00157 Level detected electrically by contact with sensors
- 2210/0016 . . Adapted for dispensing high viscosity products
- 2210/00163 . . Agitators
- 2210/00166 . . Heated tubes