

# 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.

<b>1/00</b>	<b>Apparatus or devices for dispensing beverages on draught</b> ( <a href="#">B67D 3/00</a> takes precedence; apparatus for making beverages <a href="#">A47J 31/00</a> )	<b>1/0018</b>	. . . . {based on the timed opening of a valve}
		<b>1/0019</b>	. . . . {based on volumetric dosing}
<b>1/0001</b>	. {by squeezing collapsible or flexible storage containers ( <a href="#">B67D 1/0462</a> takes precedence)}	<b>1/002</b>	. . . . {based on weighing}
<b>1/0002</b>	. {specially adapted to be used in microgravity conditions, e.g. in outer space}	<b>1/0021</b>	. . {the components being mixed at the time of dispensing, i.e. post-mix dispensers}
<b>1/0003</b>	. {the beverage being a single liquid ( <a href="#">B67D 1/02</a> , <a href="#">B67D 1/04</a> take precedence; drinking fountains <a href="#">E03B 9/20</a> )}	<b>1/0022</b>	. . . {the apparatus comprising means for automatically controlling the amount to be dispensed}
<b>1/0004</b>	. . {the beverage being stored in a container, e.g. bottle, cartridge, bag-in-box, bowl}	<b>1/0023</b>	. . . . {control of the amount of the mixture, i.e. after mixing}
<b>1/0005</b>	. . . {the apparatus comprising means for automatically controlling the amount to be dispensed}	<b>1/0024</b>	. . . . . {based on the timed opening of a valve}
<b>1/0006</b>	. . . . {based on the timed opening of a valve}	<b>1/0025</b>	. . . . . {based on volumetric dosing}
<b>1/0007</b>	. . . . {based on volumetric dosing}	<b>1/0026</b>	. . . . . {based on weighing}
<b>1/0008</b>	. . . . {based on weighing}	<b>1/0027</b>	. . . . {control of the amount of one component, the amount of the other component(s) being dependent on that control}
<b>1/0009</b>	. . {the beverage being stored in an intermediate container connected to a supply}	<b>1/0028</b>	. . . . . {based on the timed opening of a valve}
<b>1/001</b>	. . . {the apparatus comprising means for automatically controlling the amount to be dispensed}	<b>1/0029</b>	. . . . . {based on volumetric dosing}
<b>1/0011</b>	. . . . {based on the timed opening of a valve}	<b>1/003</b>	. . . . . {by means of a dosing chamber}
<b>1/0012</b>	. . . . {based on volumetric dosing}	<b>1/0031</b>	. . . . . {in the form of a metering pump}
<b>1/0013</b>	. . . . {based on weighing}	<b>1/0032</b>	. . . . . {using flow-rate sensors}
<b>1/0014</b>	. . {the beverage being supplied from water mains}	<b>1/0033</b>	. . . . . {based on weighing}
<b>1/0015</b>	. {the beverage being prepared by mixing at least two liquid components}	<b>1/0034</b>	. . . . {for controlling the amount of each component}
<b>1/0016</b>	. . {the beverage being stored in an intermediate container before dispensing, i.e. pre-mix dispensers}	<b>1/0035</b>	. . . . . {the controls being based on the same metering technics}
<b>1/0017</b>	. . . {the apparatus comprising means for automatically controlling the amount to be dispensed}	<b>1/0036</b>	. . . . . {based on the timed opening of valves}
		<b>1/0037</b>	. . . . . {based on volumetric dosing}
		<b>1/0038</b>	. . . . . {based on weighing}
		<b>1/0039</b>	. . . . . {the controls involving at least two different metering technics}
		<b>1/004</b>	. . {the diluent being supplied from water mains}
		<b>1/0041</b>	. {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 CO<sub>2</sub> 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 CO<sub>2</sub>}
- 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. CO<sub>2</sub>, N<sub>2</sub>}
- 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 CO<sub>2</sub> 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 CO<sub>2</sub>}
- 2001/0481 . . . {Single inert gas, e.g. N<sub>2</sub>}
- 2001/0487 . . . {Mixture of gases, e.g. N<sub>2</sub> + CO<sub>2</sub>}
- 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}

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 ( <a href="#">B67D 1/0897</a> takes precedence)}
1/0844	. . . . {for containers in crates}	1/10	. . Pump mechanism ( <a href="#">in general F04</a> )
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 ( <a href="#">flowmeter per se G01F 1/00, G01F 3/00</a> )}	1/108	. . . {of the peristaltic type}
1/0857	. . {Cooling arrangements ( <a href="#">cooling systems per se F25B</a> )}	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 ( <a href="#">level indicators in general G01F</a> )}	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 ( <a href="#">advertising in general G09F</a> )}	1/1231	. . . . . {Metering pumps}
1/0878	. . {Safety, warning or controlling devices ( <a href="#">B67D 1/12</a> 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}

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}	<b>3/00</b>		<b>Apparatus or devices for controlling flow of liquids under gravity from storage containers for dispensing purposes (separating and dispensing metered quantities of liquids G01F)</b>
1/1252	. . .	{Gas pressure control means, e.g. for maintaining proper carbonation (for beer engines <a href="#">B67D 1/025</a> )}	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 <a href="#">B67D 1/16</a> )}	3/0009	. . .	{provided with cooling arrangements ( <a href="#">cooling per se F25</a> )}
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 ( <a href="#">B67D 3/02</a> takes precedence)}
1/127	. . .	{Froth control ( <a href="#">B67D 1/1411</a> 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 ( <a href="#">construction of pumps: B67D 1/10</a> )}	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 ( <a href="#">closures with filling and discharging devices for containers B65D 47/00</a> )
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			



- 3/043 . . {with a closing element having a linear movement, in a direction perpendicular to the seat}
- 3/044 . . . {and venting means operated automatically with the tap}
- 3/045 . . {with a closing element having a linear movement, in a direction parallel to the seat}
- 3/046 . . . {and venting means operated automatically with the tap}
- 3/047 . . {with a closing element having a rotational movement}
- 3/048 . . . {and venting means operated automatically with the tap}
- 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](#))
- 7/002 . {using articulated pipes}
- 7/005 . {Spouts}
- 7/007 . {using siphoning arrangements}
- 7/02 . for transferring liquids other than fuel or lubricants
- 7/0205 . . {by manually operable pumping apparatus (hand-held apparatus with pumps for dispensing or spraying liquids or fluent materials [B05B 11/00](#))}
- 7/0211 . . . {with pump locking means}
- 7/0216 . . {by squeezing collapsible or flexible storage containers ([B67D 7/0255](#) takes precedence; for dispensing beverages on draught [B67D 1/0001](#))}
- 7/0222 . . . {the dispensed quantity of liquid being replaced by air sucked through the dispensing opening}
- 7/0227 . . {by an ejection plunger ([B67D 7/0238](#) takes precedence)}
- 7/0233 . . . {the plunger being gas driven}
- 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](#))}
- 7/0244 . . . {by using elastic expandable bags}
- 7/025 . . . . {specially adapted for transferring liquids of high purity}
- 7/0255 . . . {squeezing collapsible or flexible storage containers (for dispensing beverages on draught [B67D 1/0462](#))}
- 7/0261 . . . . {specially adapted for transferring liquids of high purity}
- 7/0266 . . . {by gas acting directly on the liquid}
- 7/0272 . . . . {specially adapted for transferring liquids of high purity}
- 7/0277 . . {using negative pressure}
- 7/0283 . . . {specially adapted for transferring liquids of high purity}
- 7/0288 . . {Container connection means (for dispensing beverages on draught [B67D 1/0829](#))}
- 7/0294 . . . {Combined with valves}
- 7/04 . for transferring fuels, lubricants or mixed fuels and lubricants
- 7/0401 . . {arrangements for automatically fuelling vehicles, i.e. without human intervention}
- 2007/0403 . . . {Fuelling robots}
- 2007/0405 . . . . {Opening devices}
- 2007/0407 . . . . . {for fuel tank flaps}
- 2007/0409 . . . . . {using vacuum cups}
- 2007/0411 . . . . . {using grippers}
- 2007/0413 . . . . . {using air blast}
- 2007/0415 . . . . . {for filler caps}
- 2007/0417 . . . . {Manipulator arms}
- 2007/0419 . . . . {Fuelling nozzles}
- 2007/0421 . . . . . {with locking devices}
- 2007/0423 . . . . {Fuelling hoses}
- 2007/0425 . . . . . {comprising a single hose for several fuels}
- 2007/0426 . . . . . {comprising several hoses for several fuels}
- 2007/0428 . . . . . {having devices to avoid a mix up of different fuels}
- 2007/043 . . . . {Moveable}
- 2007/0432 . . . . . {according to a planar coordinate system}
- 2007/0434 . . . . . {with the ability to compensate movements of the car during filling}
- 2007/0436 . . . . . {according to a spatial coordinate system}
- 2007/0438 . . . . . {with the ability to compensate movements of the car during filling}
- 2007/044 . . . {Customer interfaces}
- 2007/0442 . . . . {interface for orders and payments}
- 2007/0444 . . . {Sensors}
- 2007/0446 . . . . {measuring physical properties of the fluid to be dispensed}
- 2007/0448 . . . . . {Density}
- 2007/0449 . . . . . {Viscosity}
- 2007/0451 . . . . . {Temperature}
- 2007/0453 . . . . {recognising the fuel to be dispensed}
- 2007/0455 . . . . {recognising the position}
- 2007/0457 . . . . . {of the car}
- 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}

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 ( <a href="#">B67D 7/10</a> , <a href="#">B67D 7/14</a> take precedence)
7/0496	. . . . {Performance test devices therefor}	7/301	. . . . . {using mechanical means ( <a href="#">B67D 7/306</a> takes precedence)}
7/0498	. . {Arrangements specially adapted for transferring biofuels, e.g. ethanol-gasoline mixture}	7/302	. . . . . {using electrical or electro-mechanical means ( <a href="#">B67D 7/307</a> 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 ( <a href="#">leak detectors for underground fuel dispensing systems G01M 3/2892</a> )}
7/08	. . Arrangements of devices for controlling, indicating, metering or registering quantity or price of liquid transferred ( <a href="#">arrangement of flow- or pressure-control valves B67D 7/36</a> ; <a href="#">computing, calculating, counting G06</a> ; <a href="#">coin-freed apparatus for dispensing fluids G07F 13/00</a> ; <a href="#">prepayment devices for metering liquids G07F 15/00</a> )	7/3218	. . . {relating to emergency shut-off means}
7/085	. . . {Testing or calibrating apparatus therefore ( <a href="#">testing or calibrating apparatus for measuring volume flow in general G01F 25/00</a> )}	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 ( <a href="#">use of compressed air or gas for transferring liquids B67D 7/0238</a> , <a href="#">B67D 7/72</a> )}
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 ( <a href="#">indicating or recording in fluid meters G01F 15/06</a> )	7/348	. . . . . {by interrogating an information transmitter, e.g. a transponder ( <a href="#">B67D 7/145</a> takes precedence)}
7/221	. . . . {using electrical or electro-mechanical means ( <a href="#">B67D 7/224</a> takes precedence)}	7/36	. . Arrangements of flow- or pressure-control valves ( <a href="#">associated with nozzles B67D 7/42</a> )
7/222	. . . . . {involving digital counting}	7/362	. . . {combined with over-fill preventing means ( <a href="#">indicating or measuring liquid level G01F 23/00</a> ; <a href="#">level control G05D 9/00</a> )}
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 ( <a href="#">hoses in general F16L 11/00</a> )
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		

7/40	. . . Suspending, reeling or storing devices (supports for storing lengths of hoses, in general <a href="#">B65H 75/34</a> )	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 <a href="#">B67D 7/74</a> )}	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 ( <a href="#">B67D 7/425</a> 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}	<b>9/00</b>	<b>Apparatus or devices for transferring liquids when loading or unloading ships (ship-based equipment <a href="#">B63B 27/00</a>)</b>
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	<b>99/00</b>	<b>Subject matter not provided for in other groups of this subclass</b>
7/52	. . . . and provided with additional flow-controlling valve means	<b>2210/00</b>	<b>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</b>
7/54	. . . with means for preventing escape of liquid or vapour or for recovering escaped liquid or vapour ( <a href="#">B67D 7/44</a> 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 <a href="#">G01P 13/00</a> )	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 ( <a href="#">coin-freed apparatus G07F 13/06</a> )	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

## B67D

- 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