B CPC - 2020.08

B67C

COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B67 OPENING, CLOSING {OR CLEANING} BOTTLES, JARS OR SIMILAR CONTAINERS; LIQUID HANDLING

B67C CLEANING, FILLING WITH LIQUIDS OR SEMILIQUIDS, OR EMPTYING, OF BOTTLES, JARS, CANS, CASKS, BARRELS, OR SIMILAR CONTAINERS, NOT OTHERWISE PROVIDED FOR; FUNNELS

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.

3/00 Bottling liquids or semiliquids; Filling jars or cans with liquids or semiliquids using bottling or like apparatus; Filling casks or barrels with liquids or semiliquids

3/001 . . . {Cleaning of filling devices}
3/002 . . . {using cups or dummies to be placed under the filling heads}
3/004 . . . {permanently attached to the filling machine and movable between a rest and a working position}
3/005 . . . {Cleaning outside parts of filling devices}
3/007 . . . {Applications of control, warning or safety devices in filling machinery (flow-control B67C 3/28)}
3/008 . . . {Bottling or like apparatus specially adapted to be transported, e.g. positioned on a truck or in a container}
3/02 . . . Bottling liquids or semiliquids; Filling jars or cans with liquids or semiliquids using bottling or like apparatus
3/023 . . . {Filling multiple liquids in a container (B67C 3/208 takes precedence)}
3/026 . . . {Filling the liquids simultaneously}
3/04 . . . without applying pressure
3/045 . . . {Apparatus specially adapted for filling bottles with hot liquids}
3/06 . . . using counterpressure, i.e. filling while the container is under pressure
3/065 . . . {Filling siphons, e.g. carbonating beverages during filling (siphons B67D 1/0456)}
3/08 . . . and subsequently lowering the counterpressure
3/10 . . . preliminary filling with inert gases, e.g. carbon dioxide
3/12 . . . Pressure-control devices
3/14 . . . specially adapted for filling with hot liquids
3/16 . . . using suction
3/18 . . . using siphoning arrangements
3/20 . . . with provision for metering the liquids to be introduced, e.g. when adding syrups (measuring volume, or volume flow, in general G01F)
3/202 . . . {by weighing}
3/204 . . . {using dosing chambers}

3/065 . . . [using arrangements of cylinders and pistons (B67C 3/208 takes precedence)]
3/08 . . . [specially adapted for adding small amounts of additional liquids, e.g. syrup]
3/22 . . . Details

2003/221 . . . [Automatic exchange of components]
3/222 . . . [Head-space air removing devices, e.g. by inducing foam]
3/223 . . . [by squeezing the container elastically]
3/225 . . . [Means for filling simultaneously, e.g. in a rotary filling apparatus or multiple rows of containers]

2003/226 . . . [Additional process steps or apparatuses related to filling with hot liquids, e.g. after-treatment]
2003/227 . . . [Additional apparatus related to blow-moulding of the containers, e.g. a complete production line forming filled containers from preforms]

2003/228 . . . [Aseptic features]
3/24 . . . Devices for supporting or handling bottles (transport or storing devices in general B65G)
3/242 . . . [engaging with bottle necks (B67C 3/26 takes precedence)]
3/244 . . . [Bottle lifting devices actuated by jacks, e.g. hydraulic, pneumatic (B67C 3/242 takes precedence)]
3/246 . . . [Bottle lifting devices actuated by cams (B67C 3/242 takes precedence)]
3/248 . . . [Bottle lifting devices actuated by threads (B67C 3/242 takes precedence)]
3/26 . . . Filling-heads; Means for engaging filling-heads with bottle necks

2003/2602 . . . [Details of vent-tubes]
2003/2605 . . . [Piston-like check valves]
3/2608 . . . [comprising anti-dripping means]
3/2611 . . . [to prevent dripping from sources other than the filling product, e.g. deflectors for vapours condensed on the outer surface of the filling device]

3/2614 . . . [specially adapted for counter-pressure filling]
Atmospheric conditions

Details of probes

Means for preventing foaming of the various sizes of containers given position once engaged by a container

Tube

The liquid valve being carried by the vent bottle necks or bodies

Inflatable gaskets for sealingly engaging screens

Gas returning from the container into the filling

Specially adapted for sterilising prior to filling

Means to avoid overfilling by preventing gas returning from the container into the filling tank via the liquid valve, e.g. mesh screens

Specially adapted for vacuum or suction filling

Comprising a liquid valve opened by relative movement between the container and the filling head

And the filling operation being carried out manually

Specially adapted for sterilising prior to filling

[Conveying; Synchronising]

Funnels, e.g. for liquids

Devices for emptying bottles, not otherwise provided for ((during preparation of alcoholic beverages except beer C12G 1/00)

Funnels, e.g. for liquids (filter funnels B01D 23/28; volume flow-meters G01F)

Devices for engaging filling-heads with filling-apertures

Concurrent cleaning, filling, and closing of bottles; Processes or devices for at least two of these operations

Conveying; Synchronising

General lay-out of bottle-handling machines

The containers travelling along a linear path

The operation being performed batch-wise

The containers travelling along a circular path

Infeed and outfeed devices

Devices particularly adapted for container filling

Devices particularly adapted for container closing

Sterilising, aseptic filling and closing (B67C 3/2642 takes precedence)

Comprising a cleaning step between two closing steps

Sterilisation being restricted to the area of application of the closure

Lever action devices operated by hand or foot

Devices for emptying bottles, not otherwise provided for ((during preparation of alcoholic beverages except beer C12G 1/00)

Funnels, e.g. for liquids (filter funnels B01D 23/28; volume flow-meters G01F)

Without discharge valves

For draining oil from engines

With integral tool for opening the draining plug

For filling oil into engines

With non-automatic discharge valves

With automatic discharge valves
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<thead>
<tr>
<th>Date</th>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>11/063</td>
<td>.</td>
<td>for preventing spilling or dripping</td>
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<td>11/066</td>
<td>.</td>
<td>for preventing overflow of the filled container</td>
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<td>2011/20</td>
<td>.</td>
<td>comprising closures, e.g. stoppers, caps or lids</td>
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<td>2011/30</td>
<td>.</td>
<td>comprising venting means</td>
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<td>2011/40</td>
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<td>comprising level indicating means</td>
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