CLAIMS

1. Method for producing a coffee beverage in a coffee machine ~~(10)~~,
wherein the coffee machine ~~(10)~~ comprises:
a brewing device ~~(30)~~ with a brewing chamber ~~(35)~~ for receiving coffee powder, said brewing chamber ~~(35)~~ comprising at least one fluid inlet ~~(36)~~ and one fluid outlet ~~(45)~~;
a fluid system ~~(12)~~ with a fluid feed line ~~(26)~~ connected to the fluid inlet ~~(36)~~ and a fluid conveyor ~~(15)~~ for conveying a heated fluid through the fluid feed line ~~(26)~~ and with a drainage outlet ~~(65)~~ separate from the fluid outlet ~~(45)~~,
said drainage outlet ~~(65)~~ being in, or being configured to be brought into fluidic connection with the brewing chamber ~~(35)~~ and/or the fluid feed line ~~(26)~~ so that a residual fluid is enabled to be discharged from the fluid feed line ~~(26)~~ and/or the brewing chamber ~~(35)~~ through the drainage outlet ~~(65)~~;
wherein the brewing device ~~(30)~~ comprises:
a brewing cylinder ~~(31)~~ with an internal space ~~(32)~~ which has a longitudinal axis ~~(LA)~~ and is limited on one end face by an end surface ~~(40)~~ extending transversely to the longitudinal axis ~~(LA)~~ and is limited radially to the longitudinal axis ~~(LA)~~ by a side wall ~~(41)~~ extending about the longitudinal axis ~~(LA)~~;
a brewing piston ~~(34)~~ which extends in the direction of the longitudinal axis ~~(LA)~~ so that an end surface ~~(34a)~~ of the brewing piston ~~(34)~~ is arranged opposite the end surface ~~(40)~~ of the internal space ~~(32)~~,
wherein the brewing chamber ~~(35)~~ extends between the end surface ~~(40)~~ of the internal space ~~(32)~~, the end surface ~~(34a)~~ of the brewing piston ~~(34)~~ and the side wall ~~(41)~~ and the brewing piston ~~(34)~~ is configured to be moved along the longitudinal axis ~~(LA)~~ so that a

distance ~~(D1, D2)~~ between the end surface ~~(40)~~ of the internal space ~~(32)~~ and the brewing piston ~~(34)~~ is changeable;

wherein the method comprises the following steps (a) - (d):

(a) introducing a predetermined quantity of coffee powder ~~(38)~~ into the brewing chamber ~~(35)~~,

(b) conveying heated fluid through the fluid feed line ~~(26)~~ into the brewing chamber ~~(35)~~ for preparing a coffee beverage through brewing the coffee powder in the brewing chamber ~~(35)~~ and dispensing a prepared coffee beverage from the brewing chamber ~~(35)~~ through the fluid outlet ~~(45)~~,

(c) conveying a first quantity of heated fluid through the fluid feed line ~~(26)~~ into the brewing chamber, whereby step (c) is carried out before step (a),

(d) discharging at least one part of the first quantity of heated fluid supplied in step (c) from the brewing chamber ~~(35)~~ before the start of step (a),

wherein in step (d), the at least one part of the first quantity of heated fluid supplied in step (c) is discharged through the drainage outlet ~~(65)~~,

characterised in that
the method comprises the following steps (f) and (g):

(f) before the start of or during step (c), the brewing piston ~~(34)~~ is arranged in such a way that the brewing piston ~~(34)~~ is at a first predetermined distance ~~(D2)~~ relative to the end surface ~~(40)~~ of the internal space ~~(32)~~;

(g) during step (d), the brewing piston ~~(34)~~ is moved along the longitudinal axis ~~(LA)~~ so that the brewing piston ~~(34)~~ is relative to the end surface ~~(40)~~ of the internal space ~~(32)~~ at a distance ~~(D1)~~

which is smaller than the first predetermined distance ~~(D2)~~.

2. Method according to claim 1 wherein step (c) in carried out at a predetermined first time interval before the start of step (a).

3. Method according to any one of claims 1 – 2 wherein step (d) is carried out at a predetermined second time interval before the start of step (a).

4. Method according to claim 3, wherein the the conveying of the first quantity of heated fluid in accordance with step (c) is ended at a first end time and the start of the second time interval follows the first end time with a predetermined first time difference.

5. Method according to claim 4 wherein the first time difference is 0 to 10 seconds.

6. Method according to any one of claims 1–3, wherein the conveying of a first quantity of heated fluid in accordance with step (c) is ended at a first end time, the introduction of the predetermined quantity of coffee powder ~~(38)~~ into the brewing chamber ~~(35)~~ in accordance with step (a) takes place after step (c) during a third time interval and the start of the third time interval follows the first end time with a predetermined second time difference.

7. Method according to claim 6 wherein the second time difference is 1 to 20 seconds.

8. Method according to any one of claims 1–7 wherein the method comprises the following step (e):

(e) conveying a second quantity of heated fluid through the fluid feed line ~~(26)~~ and discharging

the second quantity of heated fluid through the drainage outlet ~~(65)~~,

wherein step (e) is carried out before step (c).

9. Method according to claim 8 wherein the coffee machine ~~(10)~~ comprises a residual fluid container ~~(70)~~ for receiving a residual fluid discharged from the drainage outlet ~~(65)~~, and wherein in step (e) the second quantity of heated fluid is discharged into the residual fluid container ~~(70)~~.

10. Method according to any one of claims 1-8 wherein the coffee machine ~~(10)~~ comprises a residual fluid container ~~(70)~~ for receiving a residual fluid discharged from the drainage outlet ~~(65)~~, and wherein in step (d) the at least one part of the first quantity of heated fluid supplied in step (c) is discharged into the residual fluid container ~~(70)~~.

11. Method according to any one of claims 1-10, wherein during conveying in accordance with step (c), the heated fluid is at a temperature which is in the range of 75-115°C.

12. Method according to claim 8 or 9, wherein during conveying in accordance with step (e), the heated fluid is at a temperature which is in the range of 75-115°C.

13. Method according to any one of claims 1-12, wherein the first quantity of heated fluid has such a large volume that during step (c) the brewing chamber ~~(35)~~ is fully or partially filled with heated fluid.

14. Method according to claim 8 or 9,

which comprises the following step (h):

(h) before the start of or during step (e), the brewing piston ~~(34)~~ is arranged in such a way that the brewing piston ~~(34)~~ is at a distance ~~(D1)~~ relative to the end surface ~~(40)~~ of the internal space ~~(32)~~ that is equal to a predetermined minimum value.