CLAIMS

1. A soil working device designed as a drilling bucket, an auger, a displacement-type drilling tool or a trench wall cutter for creating a substantially vertically running hole in the ground, which hole is provided with a slurry,
said soil working device having
- a basic body (12),
- a connection apparatus (20) which is arranged at an upper end region of the basic body (12), and
- a soil removal apparatus (30) and/or a soil displacement apparatus which is arranged at a lower end region of the basic body (12),

characterised in
that at a lower region of the basic body (12) a first pressure measuring apparatus (41) for measuring a first ambient pressure is arranged, and
that at an upper region of the basic body (12), which is vertically spaced apart from the lower region, a second pressure measuring apparatus (42) for measuring a second ambient pressure is arranged.

2. The soil working device according to claim 1,
characterised in
that the first pressure measuring apparatus (41) and/or the second pressure measuring apparatus (42) comprise at least one hollow measuring body (45a, 45b) which is filled with a measuring fluid.

3. The soil working device according to claim 2,
characterised in
that the measuring body (45a, 45b) comprises at least one flexible measuring surface (48) that is in contact with the environment.

4. The soil working device according to claim 2 or 3,
characterised in
that the measuring body (45a, 45b) is of tubular configuration.

5. The soil working device according to one of claims 2 to 4,
characterised in
that the measuring body (45a, 45b) is arranged substantially horizontally.

6. The soil working device according to one of claims 1 to 5,
characterised in
that the first pressure measuring apparatus (41) and the second pressure measuring apparatus (42) are in fluidic connection by means of a connection line (44), and
that a sensor apparatus (50) is arranged on the connection line (44), with which sensor apparatus a pressure difference between a first pressure at the first pressure measuring device (41) and a second pressure at the second pressure measuring device (42) can be sensed.

7. A soil working implement,
characterised in
that to create a hole in the ground, a soil working device (10) according to one of claims 1 to 6 is arranged in a vertically adjustable and drivable manner.

8. The soil working implement according to claim 7,
characterised in
that a carrier unit is provided having an upper carriage which is rotationally mounted on a mobile undercarriage.

9. The soil working implement according to claim 7 or 8,
characterised in
that a control unit is provided which has a data connection to the first pressure measuring apparatus (41), the second pressure measuring apparatus (42) and/or the sensor apparatus (50).

10. The soil working implement according to claim 9,
characterised in
that the control unit is configured to control a vertical movement and/or a rotational drive of the soil working device (10) depending on data which are transmitted from the first pressure measuring apparatus (41), the second pressure measuring apparatus (42) and/or the sensor apparatus.

11. The soil working implement according to claim 9 or 10,
characterised in
that the control unit is configured to determine a filling level based on the data about the pressure at the soil working device (10).

12. A method for creating a substantially vertical hole in the ground by means of a soil working device (10) according to one of claims 1 to 6 or a soil working implement according to one of claims 7 to 11,
wherein the hole is filled with a slurry during creation, and by means of the first pressure measuring apparatus (41), a first ambient pressure in a lower region of the soil working device is measured and by means of the second pressure measuring apparatus (42), a second ambient pressure in an upper region of the soil working device (10) is measured.

13. The method according to claim 12,
characterised in
that the first pressure measuring apparatus (41) is fluidically connected to the second pressure measuring apparatus (42) by means of a connection line (44) and
that a sensor apparatus (50) is arranged on the connection line (44), with which sensor apparatus a pressure difference between a first pressure at the first pressure measuring device (41) and a second pressure at the second pressure measuring device (42) is sensed.