CLAIMS:

1. An electric shaver comprising:

a main body (2; 202; 302), and

a shaving unit (3) having at least two cutting units (6) exposed on a shaving face (11) of the shaver, each cutting unit (6) being mounted to a cutting unit carrier (9) of the shaving unit (3) and comprising an external cutting guard (8) and an internal cutting member (7),

a sensor (15) comprising a first sensor unit (16) mounted in a fixed position relative to the main body (2; 202; 302) and a second sensor unit (17) mounted in a fixed position relative to a sensor unit carrier (22; 222; 322), the sensor (15) being arranged and configured for outputting a signal indicating a distance of the second sensor unit (17) to the first sensor unit (16) in a direction parallel to a z-axis which is oriented transverse to the shaving face (11),

wherein the shaving unit (3) and the sensor unit carrier (22; 222; 322) are suspended to the main body (2; 202; 302) for displacement in unison from a rest position (22) towards the main body (2; 202; 302) along the z-axis to a pushed-in position (22') in response to a pushing force exerted onto the shaving face (11) of the shaver (1),

wherein a resilient member is provided between the main body (2; 202; 302) and the shaving unit (3), for exerting a force along the z-axis biasing the shaving unit (3) in a direction from the pushed-in position towards the rest position, and

wherein the first sensor unit (16) and the second sensor unit (17) are located in positions offset from said z-axis over a distance (d) in a direction parallel to an x-axis which extends perpendicularly to the z-axis,

characterized in that the electric shaver comprises an anti-tilting guide (24-27; 124; 224, 226; 326, 328) for guiding at least the sensor unit carrier (22; 222; 322) with respect to the main body (2; 202; 302) against tilting about at least a y-axis which extends perpendicularly to the x-axis and the z-axis during movement of the shaving unit between the rest position (9) and the pushed-in position (9') along the z-axis.

2. The shaver according to claim 1, wherein the cutting unit carrier (9) carrying the cutting units (6) is tiltable relative to the sensor unit carrier (22; 222; 322) so as to allow tilting of the cutting units (6) relative to the sensor unit carrier (22; 222; 322) without causing displacement of at least the sensor unit carrier (22; 222; 322) relative to the main body (2; 202; 302) along the z-axis.

3. The shaver according to claim 1, wherein the cutting unit carrier (9) is releasably coupled to the sensor unit carrier (22; 222; 322) by means of a releasable coupling structure comprising a first coupling member mounted to the cutting unit carrier (9) and a second coupling member mounted to the sensor unit carrier (22; 222; 322).

4. The shaver according to any of the preceding claims, wherein the cutting unit carrier (9) is further connected to the main body (2; 202; 302) via a main drive shaft (12) for commonly driving the internal cutting members (7) of the cutting units (6).

5. The shaver according to claim 4, wherein the main drive shaft (12) has an axis of rotation extending along said z-axis centrally between said cutting units (6).

6. The shaver according to any of the preceding claims, further comprising a first suspension arm (24, 26; 224, 226) attached to the main body (2) at a first location (31, 35; 231, 235) and attached to the sensor unit carrier (22; 222) at a second location (32, 36; 232, 236), the first suspension arm (24, 26; 224, 226) extending between the first location (31, 35; 231, 235) and the second location (32, 36; 232, 236);

wherein the anti-tilting guide comprises a second suspension arm (25, 27; 225, 227) attached to the main body (2) at a third location (33) and attached to the sensor unit carrier (22; 222) at a fourth location (34, 38), the second suspension arm (25, 27; 225, 227) extending between the third location (33) and the fourth location (34, 38);

wherein the first and second suspension arms (24-27; 224-227) are elastically deformable in directions parallel to the z-axis;

wherein the first and third locations (31, 35 and 33; 231, 235) are mutually spaced over a first distance having at least a component in a direction parallel to the z-axis, the second and fourth locations (32, 36 and 34, 38; 232, 236) are mutually spaced over a second distance having at least a component in a direction parallel to the z-axis, wherein the

component in the direction parallel to the z-axis of the first distance has a length identical to a length of the component in the direction parallel to the z-axis of the second distance.

7. The shaver according to claim 6, comprising two of said first suspension arms (24, 26; 224, 226) and/or two of said second suspension arms (25, 27; 225, 227).

8. The shaver according to claim 7, wherein the two first suspension arms (24, 26; 224, 226) and/or the two second suspension arms (25, 27; 225, 227) are located on opposite sides of a plane defined by said x- and z-axes.

9. The shaver according to claim 7 or 8, wherein the two first suspension arms (24, 26; 224, 226) and/or the two second suspension arms (25, 27; 225, 227) are interconnected by a bridge (37; 240, 241) fixedly connected or integrally formed with the first and/or second suspension arms (24-27; 224-227).

10. The shaver according to any of the claims 7-9, wherein the two first suspension arms (24, 26; 224, 226) and/or the two second suspension arms (25, 27; 225, 227) diverge towards or away from each other seen in a plane extending parallel to said x- and y-axes.

11. The shaver according to any one of the claims 6-10, wherein the first and third locations (31, 33, 35; 231, 235) are positioned on a common side of a plane defined by said y- and z-axes.

12. The shaver according to claim 10, wherein the first and third locations (31, 33, 35; 231, 235) are positioned in a plane parallel to the plane defined by said y- and z-axes.

13. The shaver according to any of the claims 6-12, wherein at least one of the first and second suspension arms (24-27; 225, 227) is a flat leaf spring having length in a direction, respectively, from the first to the second location or from the third to the fourth location and a width in a direction parallel to the y-axis.

14. The shaver according to claim 13, wherein the flat leaf spring has a stiffness against bending in a plane perpendicular to the z-axis which is at least three times a stiffness of the leaf spring against bending in a plane parallel to the z-axis.

15. The shaver according to claims 5 and 8 and according to claim 13 or 14, wherein the axis of rotation of the main drive shaft (12) extends between the two first suspension arms (24, 25 and 26, 27) and/or between the two second suspension arms.

16. The shaver according to any of the preceding claims, wherein the resilient member comprises the anti-tilting guide (24, 26 or 25, 27).

17. The shaver according to any of the preceding claims, wherein the first sensor unit (16) is mounted in a position shielded from the environment by a shielding (39) and wherein the second sensor unit (17) is mounted in a position outside said shielding (39).