C l a i m s

1. Kingpin assembly (1) for a semitrailer of an articulated vehicle which, when assembled, comprises a kingpin (2) defining an axis of rotation (A), a rotary bearing (3) arranged about the axis of rotation (A), and a driver connected to the rotary bearing (3) and pivotable about the axis of rotation (A),
wherein the kingpin (2) has a kingpin flange (6) for mounting the kingpin (2) indirectly or directly on the semitrailer,
wherein the rotary bearing (3) has a stationary bearing ring (7) or a stationary bearing-ring segment that is stationary relative to the kingpin (2) and a rotatable bearing ring (8) or a rotatable bearing-ring segment that is rotatable relative thereto,
wherein the driver is fixed to the rotatable bearing ring (8) or rotatable bearing-ring segment,
characterized in that on the kingpin (2) or the stationary bearing ring (7) or the stationary bearing-ring segment on the one hand and on the rotatable bearing ring (8) or the rotatable bearing-ring segment or the driver on the other hand, respectively, one element of a pair consisting of an angle sensor and an angle encoder is arranged.

2. Kingpin assembly according to claim 1,
characterized in that the angle sensor is arranged on the rotatable bearing ring (8) or the rotatable bearing-ring segment or on the driver, and that the angle encoder is arranged on the kingpin (2) or the stationary bearing ring (7) or the stationary bearing-ring segment.

3. Kingpin assembly according to any one of the preceding claims,
characterized in that the driver comprises a centering element which is configured to center the driver in the entry opening of a fifth-wheel plate of a tractor vehicle.

4. Kingpin assembly according to any one of the preceding claims,
characterized in that the angle sensor is a contactless measuring sensor, in particular a magnetic-field or Hall sensor, a capacitive sensor, or an optical sensor.

5. Kingpin assembly according to any one of the preceding claims,
characterized in that the angle encoder comprises a magnetization pattern, an optically detectable marking pattern, a tactile marking pattern, or a combination of these patterns.

6. Kingpin assembly according to any one of the preceding claims,
characterized in that the angle encoder comprises a pattern that varies in the circumferential direction and/or in the radial direction.

7. Kingpin assembly according to claim 5 or 6,
characterized in that the pattern defines a center position.

8. Kingpin assembly according to any one of the preceding claims,
characterized in that the angle sensor comprises a wheel and the angle encoder comprises a contact surface on which the wheel bears with frictional engagement.

9. Kingpin assembly according to any one of the preceding claims,
characterized in that the driver is designed as a support frame (4) for the indirect or direct holding, in particular, of an electrical and/or electromagnetic and/or pneumatic and/or hydraulic connecting means for connection to a corresponding connection unit of a tractor vehicle.

10. Kingpin assembly according to claim 9,
characterized in that the support frame (4) has a support element (9) that is axially spaced from the rotatable bearing ring (8) or the rotatable bearing-ring segment and bears directly against the kingpin (2).

11. Kingpin assembly according to claim 10,
characterized in that the support element (9) is length-adjustable in the radial direction (R) with respect to the axis of rotation (A).

12. Kingpin assembly according to either of claims 10 or 11,
characterized in that the angle sensor is arranged on or in the support element (9).

13. Kingpin assembly according to any one of the preceding claims,
characterized in that the angle encoder is arranged on or along the circumferential surface of the kingpin (2) or on or along the surface of the kingpin flange (6).

14. Kingpin assembly according to any one of the preceding claims,
characterized in that the angle encoder is arranged on or along the surface of the stationary bearing ring (7) or on or along the surface of the kingpin flange (6).

15. Kingpin assembly according to any one of the preceding claims,
characterized in that the angle sensor is arranged on or in the rotatable bearing ring (8) or on or in the rotatable bearing-ring segment.