

Title (en)

RACK AND PINION SERVO-ASSISTED STEERING SYSTEM, IN PARTICULAR FOR MOTOR VEHICLES.

Title (de)

ZAHNSTANGEN-HILFSKRAFTLENKUNG, INSBESONDERE FÜR KRAFTFAHRZEUGE.

Title (fr)

DIRECTION ASSISTEE A CREMAILLERE, NOTAMMENT POUR AUTOMOBILES.

Publication

**EP 0659135 A1 19950628 (DE)**

Application

**EP 93920704 A 19930913**

Priority

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- EP 9302464 W 19930913

Abstract (en)

[origin: DE4230960A1] In a rack and pinion servo-assisted steering system, in particular for motor vehicles, a pinion (2) mounted in a steer housing (1) engages a rack (6). For servo-assisted steering, a servo-motor (11) is drivingly linked to the rack (6). The pinion (2) is swivelingly mounted in a fixed bearing (3) and in a loose bearing (4). The axis of a piston valve (26) arranged in the area of the loose bearing (4) is substantially perpendicular to the axis of the pinion (2). The loose bearing (4) is slidably guided perpendicularly to its axis only in the direction of the axis of the piston valve (26) in the steer housing (1). In this rack and pinion servo-assisted steering system, it is not the axial forces acting on the pinion (2) which are used to actuate the control valves, but the transverse forces. Actuation of the control valves is thus independent from the helix angle of the pinion teeth.

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