

Title (en)  
RACK AND PINION STEERING GEAR.

Title (de)  
ZAHNSTANGENLENKGETRIEBE.

Title (fr)  
MECANISME DE DIRECTION A CREMAILLERE ET PIGNON.

Publication  
**EP 0107685 A4 19871027 (EN)**

Application  
**EP 83901319 A 19830509**

Priority  
AU PF390382 A 19820507

Abstract (en)  
[origin: WO8304079A1] A rack bearing system for supporting a rack (1) in mesh with a pinion (3). The rack (1) can be of "Y" cross-section or it can be cylindrical in shape. Rack (1) is supported by means of pads (12, 13) bearing on inclined surfaces (10, 11) of the rack (1). The pads (12, 13) are supported by means of screws (14, 15) adjustable in the housing (2) and locked by lock nuts (16, 17). Typically one pad (13) will bear on a spherical seat (18) of screw (17) in a manner which allows rocking. Similarly pad (12) will bear on leaf spring (20) which bears on a spherical seat of screw (14). By allowing movement of the rack (1) towards the pinion (3), the leaf spring (20) ensures slack-free engagement between the rack (1) and pinion (3). Alternatively, the pads are provided with convex spherical recesses in the upper ends of the screws. A coil spring is provided within the screws to force the pads into engagement with the rack. Each pad (12, 13) can pivot or tilt when movement or bending of the rack (1) occurs. In the case of the alternative construction the pads can swivel. The pads can be adjusted and so can accommodate manufacturing defects in the rack and so provides substantially uniform contact pressure between the pads and the rack.

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IPC 8 full level  
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• [X] EP 0039154 A1 19811104 - CAM GEARS LTD [GB]  
• [A] GB 1324322 A 19730725 - CAM GEARS LTD  
• [A] DE 6602482 U 19690522 - CAM GEARS LTD FA [GB]

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