Title (en)

STEER-BY-WIRE STEERING SYSTEM WITH MECHANICAL BACK-UP

Title (de)

"STEER-BY-WIRE" LENKUNGSSYSTEM MIT MECHANISCHER NOTSTEUEREINRICHTUNG

Title (fr)

SYSTEME DE DIRECTION PAR CABLES COMPORTANT UN DISPOSITIF MECANIQUE DE SECOURS

Publication

**EP 1232066 A2 20020821 (EN)**

Application

**EP 00991483 A 20001116**

Priority

- US 0042204 W 20001116
- US 16568299 P 19991116

Abstract (en)

[origin: WO0136250A2] A steer-by-wire system for a motor vehicle that utilizes a mechanical back-up device that enables the motor vehicle to be steered mechanically in the event of a failure of the steer-by-wire function includes a steering column having an upper end and a lower end, a hand steering device disposed on the upper end of the steering column, a lower shaft disposed on the lower end of the steering column, the mechanical backup device configured to be in mechanical communication with the lower shaft, and a rack configured to steer at least one steerable wheel of the motor vehicle in mechanical communication with the backup device. The mechanical backup device includes a pinion lashedly engaged to the lower shaft to provide communication between the rack and the steering column. The mechanical communication of the pinion and the lower shaft may be through a pinion shaft. The lashed engagement of the pinion and the pinion shaft may be effectuated by the positioning of engaging sets of splines disposed on the pinion and the pinion shaft.

[origin: WO0136250A2] A steer-by-wire system (30) for a motor vehicle that utilizes a mechanical backup device (50) that enables the motor vehicle to be steered mechanically in the event of a failure of the steer-by-wire function includes a steering column having an upper end (36) and a lower end (44), a hand steering device disposed on the upper end (36) of the steering column, a lower shaft (44) disposed on the lower end (44) of the steering column, the mechanical backup device (50) configured to be in mechanical communication with the lower shaft (44), and a rack (64) configured to steer at least one steerable wheel of the motor vehicle in mechanical communication with the backup device (50). The mechanical backup device (50) includes a pinion (60) lashedly engaged to the lower shaft (44) to provide communication between the rack (64) and the steering column. The lashed engagement of the pinion (60) and the pinion shaft (54) is effectuated by the positioning of engaging sets of splines (68, 69) disposed on the pinion (60) and the pinion shaft (54).

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**B60G 7/04**

IPC 8 full level

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