

[54] AUTOMATIC PARALLEL PARKING SYSTEM

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[57] ABSTRACT

A vehicular automatic parallel parking system adapted for installation either as a factory option or as a retrofit kit. A microprocessor-based controller exercises control over a hydraulic valve which regulates the fluid to the vehicle's power steering cylinder. Preferably the system controls the vehicle's standard power steering valve through a solenoid attachment, although a separate solenoid-operated valve in parallel with the power steering valve can be used in retrofit installations if necessary. By its sensing of rearward distance moved by the vehicle, the controller is able to control turning during a parallel parking maneuver through its regulation of the solenoid-operated valve. The turning parameters of the vehicle are adjustable in response to certain variable inputs, including the transverse distance separating the vehicle from the parked vehicle behind which it is desired to park, the longitudinal alignment of the two vehicles, relative length of the available parking space, and the width of the parked vehicle. Sensors automatically provide inputs representative of the transverse and longitudinal relationships between the driven vehicle and the parked vehicle.

8 Claims, 2 Drawing Sheets

