

Title (en)  
VEHICLE ROLL CONTROL SYSTEM

Title (de)  
ROLLSTEUERSYSTEM FÜR FAHRZEUGE

Title (fr)  
SYSTEME DE CONTROLE DE ROULIS DE VEHICULE

Publication  
**EP 1747106 A1 20070131 (EN)**

Application  
**EP 05736186 A 20050427**

Priority  
• EP 2005004508 W 20050427  
• GB 0410357 A 20040510

Abstract (en)  
[origin: WO2005108127A1] A vehicle roll control system comprising a front torsion bar; a front hydraulic actuator (34) attached to the front torsion bar; a rear torsion bar; a rear hydraulic actuator (34') attached to the rear torsion bar; and control means (70-87) connected to the front and rear hydraulic actuators and controlling the operation thereof on detection of a determined vehicle condition; wherein each front and rear hydraulic actuator comprises a housing, a piston (62, 62') making a seal sliding fit inside the housing to define a first fluid chamber (58, 58') and a second fluid chamber (60, 60'), and a piston rod (64, 64') connected to the piston and extending through the second fluid chamber and out of the housing; wherein the control means acts on detection of the predetermined vehicle condition to apply a fluid pressure to the first fluid pressure to the first fluid chamber of the front hydraulic actuator which is different from the fluid pressure applied to the first fluid chamber of the rear hydraulic actuator and/or apply a fluid pressure to the second fluid chamber of the front hydraulic actuator which is different from the fluid pressure applied to the second fluid chamber of the rear hydraulic actuator, and wherein the control means comprises a source of the fluid (80), a fluid reservoir (81), a fluid flow path divider (87) fluidly connected to the pressure source and having a first output (88) and a second output (89), a first pressure control valve (85) fluidly connected between the first output of the flow divider and the reservoir to control the fluid pressure in the first or second fluid chamber of the front actuator, a second pressure control valve (86) connected between the second output of the flow divider and the reservoir to control the fluid pressure in the first or second fluid chamber of the rear actuator; wherein the pressure control valves are actuated to create the pressure differential between the first fluid chamber and/or to create the pressure differential between the second fluid chambers.

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