

Title (en)

DAMPER HYDRAULIC BUMP STOP FOR VEHICLE, DAMPING SYSTEM AND METHOD FOR USING SAME

Title (de)

HYDRAULISCHER ANSCHLAGPUFFER FÜR KRAFTFAHRZEUGSTOSSDÄMPFER, STOSSDÄMPFENDES SYSTEM UND VERFAHREN ZUM BETRIEB EINES SOLCHEN SYSTEMS

Title (fr)

BUTÉE HYDRAULIQUE D'AMORTISSEUR POUR VEHICULE, SYSTEME AMORTISSEUR ET PROCEDE D'UTILISATION

Publication

EP 1554506 A2 20050720 (FR)

Application

EP 03778438 A 20031023

Priority

- FR 0303135 W 20031023
- FR 0213644 A 20021025
- FR 0309417 A 20030731

Abstract (en)

[origin: WO2004040164A2] The invention concerns a end-of-stroke hydraulic bumper stop for a damping system comprising a limit stop piston (10) integral with a cylinder rod (7) sliding in the damper body (1), including also a limit stop body (120) fixed at the upper end of the body (1), a cylindrical portion (103) of the limit stop piston (10) being urged to enclose and compress an oil volume (V) contained in an inner housing (12) of the limit stop body (120) upon compression displacement of the damper. A fraction of the oil volume (V) flows back between the piston (10) and the limit stop body (120), said fraction decreasing with the forward displacement of the limit stop piston (10), thereby generating a resistance to the increasing compression, as well as forming a high pressure oil film (F) between the piston (10) and the limit stop body (120) which lubricates the contact between the surfaces of those two components.

IPC 1-7

F16F 9/512

IPC 8 full level

F16F 9/49 (2006.01); **F16F 9/512** (2006.01); **F16F 9/58** (2006.01)

CPC (source: EP)

F16F 9/49 (2013.01); **F16F 9/585** (2013.01)

Citation (search report)

See references of WO 2004040164A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004040164 A2 20040513; **WO 2004040164 A3 20040910**; **WO 2004040164 B1 20041125**; AU 2003285437 A1 20040525; AU 2003285437 A8 20040525; EP 1554506 A2 20050720; FR 2851808 A1 20040903; FR 2851808 B1 20060929

DOCDB simple family (application)

FR 0303135 W 20031023; AU 2003285437 A 20031023; EP 03778438 A 20031023; FR 0309417 A 20030731