Title (en)
    TOY VEHICLE HAVING IMPACT-RESPONSIVE CRASH SIMULATION

Title (de)
    SPIELFAHRZEUG MIT SIMULATION EINES AUFPRALLUNFALLS

Title (fr)
    VEHICULE-JOUET SIMULANT UN ACCIDENT SOUS L'EFFET D'UN IMPACT

Publication
    EP 1073502 A1 20010207 (EN)

Application
    EP 99937743 A 19990802

Priority
    • US 9917511 W 19990802
    • US 13212898 A 19980810

Abstract (en)
    [origin: WO0009230A1] A front portion (12) and rear portion (14) of a toy vehicle (10) are pivotally secured to each other by a pivot (32) and an over-center action spring mechanism (70). The front and rear portions define travel limit stops which secure the front and rear portions in a straight line arrangement in one direction of over-center spring action. Additional limit stops are provided in the opposite direction in which the front and rear portions are pivoted into a crash simulation configuration. In one embodiment, the pivotal attachment of the front and rear portions of the toy vehicle allows pivotal movement in the horizontal position while, in an alternate embodiment, the pivotal attachment between front portion and rear portion of the vehicle allows pivotal movement thereof in the vertical plane. In both instances, the over-center action of the spring mechanism operative upon the pivot provides a maintaining spring force for straight line configuration and for angled crash simulation configuration.

IPC 1-7
    A63H 17/02

IPC 8 full level
    A63H 17/02 (2006.01)

CPC (source: EP)
    A63H 17/02 (2013.01)

Designated contracting state (EPC)
    AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
    WO 0009230 A1 20000224; AT E327014 T1 20060615; AU 5251399 A 20000306; AU 750601 B2 20020725; CA 2333000 A1 20000224;
    DE 69931483 D1 20060629; DE 69931483 T2 20061221; EP 1073502 A1 20010207; EP 1073502 A4 20041215; EP 1073502 B1 20060524

DOCDB simple family (application)
    US 9917511 W 19990802; AT 99937743 T 19990802; AU 5251399 A 19990802; CA 2333000 A 19990802; DE 69931483 T 19990802;
    EP 99937743 A 19990802