

Title (en)

ELECTRIC SEAT BELT RETRACTOR SYSTEM

Title (de)

ELEKTRISCHES SICHERHEITSGURTAUFROLLER-SYSTEM

Title (fr)

SYSTEME DE RETRACTEUR ELECTRIQUE DE CEINTURE DE SECURITE

Publication

EP 1625055 A1 20060215 (EN)

Application

EP 04752769 A 20040518

Priority

- US 2004015814 W 20040518
- US 44069803 A 20030519
- US 45935303 A 20030611

Abstract (en)

[origin: WO2004103782A1] An electric retractor extracts and retracts a seat belt in response to tension in the seat belt. The electric retractor may include a spool rotatably attached to a retractor frame. A seat belt is wound on the spool. The spool is rotated by a motor via a worm gear system that permits limited axial motion of the worm, but generally prevents the motor from being back-driven by tension in the seat belt to prevent forced seat belt extraction. The gear system may also cut off power to the motor in the event of excessive seat belt tension to prevent further payout of the seat belt. A seat belt webbing sensor senses tension in the seat belt and activates the motor to retract or extract the seat belt from the retractor. An emergency control system may override the web guide control in response to abnormal vehicle dynamics to provide reversible pre-crash pretensioning and/or crash pretensioning.

IPC 1-7

B60R 22/44; B60R 22/46

IPC 8 full level

B60R 22/44 (2006.01); **B60R 22/46** (2006.01); **G05D 15/01** (2006.01); **B60R 21/01** (2006.01); **B60R 21/015** (2006.01)

CPC (source: EP)

B60R 22/44 (2013.01); **B60R 22/46** (2013.01); **G05D 15/01** (2013.01); **B60R 21/0155** (2014.10); **B60R 2022/4473** (2013.01);
B60R 2022/4666 (2013.01)

Citation (search report)

See references of WO 2004103782A1

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 PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004103782 A1 20041202; EP 1625055 A1 20060215

DOCDB simple family (application)

US 2004015814 W 20040518; EP 04752769 A 20040518