

Title (en)

ELECTROMECHANICAL ACTUATING DEVICE FOR A ROTATABLE COLUMN FOR MOVING A PIVOTING WING OF A VEHICLE DOOR

Publication

EP 0217228 B1 19891213 (DE)

Application

EP 86112812 A 19860917

Priority

DE 3535259 A 19851003

Abstract (en)

[origin: US4730513A] An electromechanical device for activating a rotating post that moves the leaf of a swinging door on a vehicle, especially a mass-transit vehicle. An electric motor activates the column by means of an intermediate worm gear. The motor outtake shaft is coupled to the worm-gear intake shaft. A worm wheel is coupled to the worm-gear outtake shaft, which activates the rotating post. The electromechanical activating device contains an emergency mechanism for uncoupling the worm-gear outtake shaft from the worm wheel in relation to their rotation. The mechanism incorporates a coupling that can be disengaged between the outtake shaft and the worm wheel, which is mounted over it coaxially. The mechanism also involves several balls situated such that they can be forced into recesses in the outtake shaft while simultaneously engaging axial grooves in the inner surface of the worm wheel. The end of the outtake shaft that is remote from the rotating post has an axial bore that the recesses lead into and that accommodates a cylindrical slide. The balls rest against the surface of the slide. The slide has an initial longitudinal section with a diameter that ensures that a prescribed volume of each ball will project out of the recesses. The slide also has an adjacent longitudinal section with a diameter that continuously decreases to a length such that the balls will completely enter the recesses. A mechanism displaces the slide to a prescribed extent against the force of a compression spring.

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IPC 8 full level

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CPC (source: EP US)

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Cited by

FR2775495A1; US6634140B1; FR2712556A1; DE19724439A1; DE29611395U1; CN102426395A; EP2803800A1; RU2655282C2; EP1072749A3; EP2803801A1; US7310911B1; US10472875B2; US11187022B1; WO2014184691A1

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