

Title (en)

Roof raising device comprising a security for a double deck car transporting wagon

Title (de)

Dachhubeinrichtung mit Sicherheitseinrichtung für einen Doppelstock-Autotransport-Eisenbahnwagen

Title (fr)

Dispositif d'élévation du toit comportant une sécurité pour un wagon à deux niveaux pour le transport d'autos

Publication

EP 1433686 B1 20050615 (DE)

Application

EP 03026709 A 20031121

Priority

DE 10257987 A 20021212

Abstract (en)

[origin: EP1433686A1] The roof lifting device has hydraulic pushrods (2) as lifting element, one pair (2.1, 2.2) at each end of the wagon. They are connected by turning arms (3) to a torsion bar (4) running crosswise. The turning arm has a connecting point for a hydraulic drive in the upper region between the application point of the pushrod and the torsion bar.

IPC 1-7

B61D 39/00; **B61D 3/18**

IPC 8 full level

B61D 3/18 (2006.01); **B61D 39/00** (2006.01)

CPC (source: EP)

B61D 3/187 (2013.01); **B61D 39/006** (2013.01)

Cited by

CN101797925A; RU186197U1

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)

EP 1433686 A1 20040630; **EP 1433686 B1 20050615**; AT E297859 T1 20050715; DE 10257987 A1 20040701; DE 50300656 D1 20050721; ES 2244881 T3 20051216

DOCDB simple family (application)

EP 03026709 A 20031121; AT 03026709 T 20031121; DE 10257987 A 20021212; DE 50300656 T 20031121; ES 03026709 T 20031121