

## Title (en)

COMPACT CARRIAGE FOR A LONGITUDINALLY MOVABLE, HEAVY DOOR LEAF

## Title (de)

KOMPAKTER LAUFWAGEN FUER EINEN LAENG-S-BEWEGLICHEN, SCHWEREN FLUEGEL

## Title (fr)

CHARIOT COMPACT POUR BATTANT DE POIDS ÉLEVÉ POUVANT EFFECTUER UN DÉPLACEMENT LONGITUDINAL

## Publication

**EP 2384386 B1 20170301 (DE)**

## Application

**EP 10701734 A 20100111**

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## Abstract (en)

[origin: WO2010079461A2] The invention relates to a carriage and to a method for longitudinally moving a door leaf into a parallel stored position. In order to obtain a compact design in spite of castors (20, 21) having a large diameter, a housing area (10) having at least two of the castors (20, 21) and a support location (16) for supporting an extension arm (30) in a swiveling manner is provided. For the parallel storing of the door leaf, the extension arm (30) comprises a far support location (100) for the door leaf and a support location (38) closer to the housing area (10) for an end of a control arm (35). A control section (40, 41) is continued in a longitudinal direction of the housing area (10) and comprises a guide (41) for the other end area of the control arm (35). The extension arm (30) completely covers the control arm (35) in a swiveled-in position when the extension arm is viewed in the horizontal direction. At the same time, the control arm (35) is located in a swivel plane that is located offset in parallel below a top side and offset in parallel above a bottom side of the extension arm (30). The carriage thus becomes compact and effective at the same time.

## IPC 8 full level

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## Citation (opposition)

Opponent : Gretschi-Unitas GmbH Baubeschlge

- DE 3540346 C1 19870619 - FUHR CARL GMBH & CO
- DE 29825215 U1 20060330 - VKR HOLDING AS [DK]
- EP 0045009 A1 19820203 - GRETSCH UNITAS GMBH [DE]
- DE 1225987 B 19660929 - FRANK WILHELM
- EP 0619410 A1 19941012 - HAUTAU GMBH W [DE]
- DE 567048 C 19321227 - WILHELM HAUTAU
- DE 19539014 A1 19960523 - LINDER GMBH A [DE]
- DE 202004019098 U1 20060413 - WEBER & CO GMBH KG [DE]
- EP 1388631 A2 20040211 - HETTICH HEINZE GMBH & CO KG [DE]
- DE 202005007687 U1 20060928 - WEBER & CO GMBH KG [DE]
- JP S6145571 U 19860326
- EP 1936084 A2 20080625 - HAUTAU GMBH [DE]
- EP 1688573 A1 20060809 - SCHUECO INT KG [DE], et al
- DE 8707044 U1 19870709
- EP 0103725 A2 19840328 - GRETSCH UNITAS GMBH [DE]
- EP 1132562 A2 20010912 - HAUTAU GMBH W [DE]
- DE 3711170 C1 19880630 - SIEGENIA FRANK KG
- EP 1170448 A1 20020109 - GRETSCH UNITAS GMBH [DE]
- DE 8435367 U1 19850411
- HAUTAU: "Atrium HKS 200", PRSENTATION DES LAUFWAGENBESCHLAGS, 20 October 2008 (2008-10-20), XP055440330
- G-U: "Parallelschiebe-Kippbeschlag G.U.-976 fr Fenster und Tren aus Holz", PROSPEKT, pages 1 - 8, XP055440351
- SASS F. ET AL: "DUBBEL Taschenbuch fr den Maschinenbau", 1974, SPRINGER-VERLAG, pages: 370 - 371, XP055440322
- ROTO: "Systeme Patio Roto 3150 Z/ 4180 Z", EINBAUANLEITUNG, January 2004 (2004-01-01), pages 1 - 48, XP055440314

Opponent : Roto Frank AG

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- DE 8707044 U1 19870709
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- DE 3711170 C1 19880630 - SIEGENIA FRANK KG
- EP 1170448 A1 20020109 - GRETSCH UNITAS GMBH [DE]

- DE 8435367 U1 19850411
- "Der Neue ATRIUM HKS200", PRÄSENTATION DES LAUFWAGENBESCHLAGS HKS 200, 20 October 2008 (2008-10-20)
- LAUFWAGENBESCHLAG GU-976
- "DUBBEL Taschenbuch für den Maschinenbau", 1974, article "Festigkeitslehre - Biegung", pages: 370 - 371, XP055599998
- "Das Patio Beschlagsystem Einbauanleitung für alle Systeme Patio 3150 Z 4180 Z", ROTO PATIO Z, pages 1 - 48, XP055600000
- ALU-HKS 150 VERÖFFENTLICHT, 1995

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 HU E034462 T2 20180228; KR 101520993 B1 20150515; KR 20110133549 A 201111213; LT 2384386 T 20170410; PL 2384386 T3 20170831;  
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