

Title (en)  
VERTICAL ROLLER DOOR FOR LOW LINTELHEIGHTS

Publication  
**EP 0230999 A3 19880107 (DE)**

Application  
**EP 87100953 A 19870123**

Priority  
DE 3602520 A 19860128

Abstract (en)  
[origin: US4878529A] Sectional overhead garage door for low lintel heights, with the door leaf members of which, except for the one that is uppermost in the closed position, being guided in guide rails having a vertical, an arcuate, and a horizontal section, and with rollers of the uppermost door leaf member being guided in two guide rails, extending with an approximately horizontal section above and in parallel to the approximately horizontal primary guide section provided on the same side, and each of these being connected to an intermediate guide member adapted to be lowered from the horizontal in the direction of the upper frame zone, so that the uppermost door leaf member, when the door leaf is transferred into the closed position, passes into the plane of the closed door leaf along a shorter path than the remaining door leaf members. The arrangement of the intermediate guide member for the rollers of the uppermost door leaf member is such that a weight balancing shaft, torsion springs, and the rollers can be attached at a lower level. This is achieved by providing the intermediate guide member for the rollers of the uppermost door leaf member as well as the torsion shaft bearing at special bearing brackets in the two upper corner zones of the door frame, and fashioning the intermediate guide members with a linear zone between end sections that are of a curved and, respectively, angled configuration.

IPC 1-7  
**E06B 9/08**; **E05D 15/24**

IPC 8 full level  
**E05D 15/24** (2006.01); **E05F 15/16** (2006.01); **E05F 15/668** (2015.01); **E06B 9/08** (2006.01)

CPC (source: EP US)  
**E05D 15/246** (2013.01 - EP US); **E05F 15/668** (2015.01 - EP US); **E05D 13/1261** (2013.01 - EP US); **E05Y 2201/684** (2013.01 - EP US); **E05Y 2600/40** (2013.01 - EP US); **E05Y 2600/626** (2013.01 - EP US); **E05Y 2900/106** (2013.01 - EP US)

Citation (search report)  
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• [A] US 4119133 A 19781010 - WOLF CECIL R  
• [A] CH 343624 A 19591231 - MORRISON STEEL PRODUCTS INC [US]

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Designated contracting state (EPC)  
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