

Title (en)  
Counterbalance and lift mechanism

Title (de)  
Gegengewicht- und Hebemechanismus

Title (fr)  
Contrepoids et mécanisme de levage

Publication  
**EP 0782920 A3 19971022 (DE)**

Application  
**EP 96116475 A 19961015**

Priority  
US 57799695 A 19951222

Abstract (en)  
[origin: EP0782920A2] The mechanism supports a cylinder (19) with a detachable end part so that a removable shell can be fitted onto it. The counterweight mechanism is fitted to one end of the cylinder. The cylinder is supported at both ends by support casings (12). One of these is itself supported by a movable support device (17) while the cylinder is in the set-down position. The support device has a sliding device (18) on the side frame (32).

IPC 1-7  
**B41F 13/20**; **B41F 27/10**

IPC 8 full level  
**B41F 13/24** (2006.01); **B41F 13/20** (2006.01); **B41F 13/34** (2006.01)

CPC (source: EP US)  
**B41F 13/20** (2013.01 - EP US); **B41P 2227/20** (2013.01 - EP US)

Citation (search report)

- [DA] US 5237920 A 19930824 - GUARALDI GLENN A [US]
- [DA] US 5301609 A 19940412 - GUARALDI GLENN A [US], et al

Designated contracting state (EPC)  
AT DE FR GB IT NL

DOCDB simple family (publication)  
**US 5678485 A 19971021**; AT E180439 T1 19990615; CA 2190400 A1 19970623; CA 2190400 C 20000125; CN 1093468 C 20021030; CN 1157213 A 19970820; DE 19643568 A1 19970626; DE 59601992 D1 19990701; EP 0782920 A2 19970709; EP 0782920 A3 19971022; EP 0782920 B1 19990526; HK 1001124 A1 19980529; JP 3863953 B2 20061227; JP H09183209 A 19970715

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**US 57799695 A 19951222**; AT 96116475 T 19961015; CA 2190400 A 19961115; CN 96114181 A 19961220; DE 19643568 A 19961022; DE 59601992 T 19961015; EP 96116475 A 19961015; HK 98100033 A 19980105; JP 33967696 A 19961219