

Title (en)

Package brake and automatic winder including the same

Title (de)

Spulenbremse und automatischer Spuler, der diese Bremse beinhaltet

Title (fr)

Freinage global et enrouleur automatique l'incluant

Publication

**EP 2161232 A2 20100310 (EN)**

Application

**EP 09168228 A 20090820**

Priority

JP 2008228861 A 20080905

Abstract (en)

A first acting force (f1) that is directed to the front direction towards a take-up tube 21 and that exerts a braking force between an action member 32 and a holding member 31 and a second acting force (f2) that is directed to a rear direction away from the take-up tube 21 and that exerts a braking force between the action member 32 and the holding member 31 are applied to the action member 32 and the holding member 31. Thus, an excessive increase of a holding force can be effectively controlled while increasing the braking force (Fig. 1).

IPC 8 full level

**B65H 54/42** (2006.01); **B65H 54/553** (2006.01); **B65H 54/74** (2006.01)

CPC (source: EP)

**B65H 54/42** (2013.01); **B65H 54/553** (2013.01); **B65H 54/74** (2013.01); **B65H 2701/31** (2013.01)

Citation (applicant)

JP S6425061 A 19890127 - FUJI PHOTO FILM CO LTD

Cited by

ITMI20120479A1; EP2573024A3; EP3312119A1; EP3375743A1

Designated contracting state (EPC)

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Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

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