

Title (en)

Lifting hook for a sheet separation device

Title (de)

Hebehaken für eine Bogentrennvorrichtung

Title (fr)

Crochet de levage pour un dispositif de séparation de feuilles

Publication

**EP 1228990 A3 20031008 (DE)**

Application

**EP 01129282 A 20011213**

Priority

US 26525301 P 20010131

Abstract (en)

[origin: US2002101018A1] An apparatus for separating a flat product from a pile of flat products set operators comprising a lift hook being movable from a closing position to an opening position. The lift hook supports the bottom of a pile of flat products in its closing position and includes an air channel for supplying air through said channel. Alternatively, a separate air tube may be provided.

IPC 1-7

**B65H 3/08**; **B65H 3/48**; **B65H 3/50**

IPC 8 full level

**B65H 3/08** (2006.01); **B65H 3/34** (2006.01); **B65H 3/48** (2006.01); **B65H 3/50** (2006.01)

CPC (source: EP US)

**B65H 3/085** (2013.01 - EP US); **B65H 3/0858** (2013.01 - EP US); **B65H 3/34** (2013.01 - EP US); **B65H 3/48** (2013.01 - EP US); **B65H 3/50** (2013.01 - EP US); **B65H 2402/31** (2013.01 - EP US); **B65H 2405/113** (2013.01 - EP US)

Citation (search report)

- [XY] US 3790163 A 19740205 - HELM H
- [X] DE 4241855 A1 19940616 - KOLBUS GMBH & CO KG [DE]
- [X] EP 0915043 A1 19990512 - SMITHE MACHINE CO INC F L [US]
- [X] DE 19823649 A1 19991202 - KOLBUS GMBH & CO KG [DE]
- [Y] US 6015145 A 20000118 - HARTEL SIEGFRIED [US]
- [Y] DE 4110861 A1 19921008 - KOHLS RUEDIGER [DE]
- [A] DE 4218203 A1 19931209 - KOLBUS GMBH & CO KG [DE]
- [A] DE 1231261 B 19661229 - ERTMA S A

Cited by

EP1506931A1; FR2904617A1; EP1520817A1; US7419153B2; US7677552B2; WO2008015347A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**US 2002101018 A1 20020801**; **US 6634635 B2 20031021**; DE 10161216 A1 20020801; EP 1228990 A2 20020807; EP 1228990 A3 20031008

DOCDB simple family (application)

**US 88663501 A 20010621**; DE 10161216 A 20011213; EP 01129282 A 20011213