

Title (en)

Sheet feeder in image reading apparatus

Title (de)

Bogenzuführvorrichtung in einer Bildauslesevorrichtung

Title (fr)

Dispositif d'alimentation de feuilles dans un appareil de lecture d'images

Publication

EP 1457445 B1 20120118 (EN)

Application

EP 04251424 A 20040311

Priority

JP 2003070679 A 20030314

Abstract (en)

[origin: EP1457445A2] A sheet feeder includes a plurality of roller pairs (19,20), which are drive roller segments and driven roller segments that press against the drive roller segments, disposed in pairs at a downstream side of a reading point. At least an outer layer of each of the drive roller segments is constructed of a material, such as a rubber, having a high coefficient of friction relative to a document sheet and at least an outer layer of each of the driven roller segments is made from a material having a low coefficient of friction relative to the document sheet. The drive roller segments are disposed on an axis (30) perpendicular to a sheet feed direction, whereas the driven roller segments are disposed on axes (29) inclined to the sheet feed direction symmetrically about a centerline of a width of the document sheet. Further, the axes of the driven roller segments are inclined such that the end of each of the segment's axis furthest from the centerline is on one of an upstream or downstream side of a sheet feed direction and an end closest to the centerline is on one of a downstream or upstream side of the sheet feed direction opposite that of the other end.

IPC 8 full level

B65H 5/06 (2006.01); **B65H 29/14** (2006.01); **B65H 29/22** (2006.01); **B65H 29/70** (2006.01); **H04N 1/00** (2006.01)

CPC (source: EP US)

B65H 29/14 (2013.01 - EP US); **B65H 2404/133** (2013.01 - EP US); **B65H 2404/134** (2013.01 - EP US); **B65H 2404/1431** (2013.01 - EP US); **B65H 2404/531** (2013.01 - EP US); **B65H 2801/06** (2013.01 - EP US)

Citation (examination)

- EP 0919878 A2 19990602 - CANON KK [JP]
- JP 2001310857 A 20011106 - PFU LTD

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1457445 A2 20040915; **EP 1457445 A3 20071128**; **EP 1457445 B1 20120118**; CN 1325349 C 20070711; CN 1530306 A 20040922; CN 2795166 Y 20060712; JP 2004277089 A 20041007; JP 3959638 B2 20070815; US 2004178571 A1 20040916

DOCDB simple family (application)

EP 04251424 A 20040311; CN 200410028500 A 20040312; CN 200420006404 U 20040312; JP 2003070679 A 20030314; US 79714904 A 20040311