

Title (en)

Belt-conveyance control device, image forming apparatus, belt-conveyance control method, and computer program product

Title (de)

Bandfördersteuerungsvorrichtung, Bilderzeugungsvorrichtung, Bandfördersteuerungsverfahren und Computerprogrammprodukt

Title (fr)

Dispositif de commande de transport de courroie, appareil de formation d'images, procédé de commande de transport de courroie, et produit de programme informatique

Publication

EP 2026139 A2 20090218 (EN)

Application

EP 08251756 A 20080520

Priority

- JP 2007139084 A 20070525
- JP 2008056437 A 20080306

Abstract (en)

A belt-conveyance control device includes a belt (30) that is supported by a drive roller (31) and a driven roller (32), a pulse motor (11) that drives the drive roller (31), and a first encoder (18) that is attached to the driven roller (32) to detect a displacement of the belt (30). The belt-conveyance control device controls a conveying speed of the belt (30). The belt-conveyance control device further includes a control unit that calculates a difference between the displacement detected by the first encoder (18) and a predetermined target value, calculates a pulse frequency of a driving pulse signal for driving the pulse motor (11) based on a feedback control based on the difference and a feed-forward control based on a reference driving pulse frequency, sets a control range of the feedback control to be equal to or smaller than a frequency of one rotation of the driven roller (32), and controls driving of the pulse motor (11) such that the belt (30) moves at a constant speed.

IPC 8 full level

G03G 15/00 (2006.01)

CPC (source: EP)

G03G 15/1615 (2013.01); **G03G 15/5008** (2013.01); **G03G 2215/00139** (2013.01); **G03G 2215/00156** (2013.01); **G03G 2215/0158** (2013.01)

Citation (applicant)

- JP S62242965 A 19871023 - CANON KK
- JP 2004187413 A 20040702 - RICOH KK
- JP S62219651 A 19870926 - FUJITSU LTD
- JP 2000047547 A 20000218 - FUJI XEROX CO LTD
- JP 2001066909 A 20010316 - FUJI XEROX CO LTD
- JP 2754582 B2 19980520
- JP 2007139084 A 20070607 - RICOH KK
- JP 2008056437 A 20080313 - NITTO SEIKO KK

Cited by

CN112277465A

Designated contracting state (EPC)

DE ES FR GB IT NL

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

EP 2026139 A2 20090218; EP 2026139 A3 20140910; EP 2026139 B1 20180801

DOCDB simple family (application)

EP 08251756 A 20080520