

Title (en)

Device for guiding and regulating the forward step in operating machines with intermittent forward motion, particularly for automatic screen printing machines.

Title (de)

Vorrichtung zum Führen und Regulieren des Vorwärtsschrittes beim Betrieb von Maschinen mit intermittierender Vorwärtsbewegung, insbesondere für automatische Siebdruckmaschinen.

Title (fr)

Dispositif pour guider et régler le pas d'avance lors du fonctionnement de machines à mouvement d'avance intermittent, en particulier pour une machine automatique de sérigraphie.

Publication

**EP 0446977 B1 19940706 (EN)**

Application

**EP 91200351 A 19910219**

Priority

IT 1950190 A 19900227

Abstract (en)

[origin: EP0446977A1] The invention described here is a control device for regulating the intermittent forward feed step of machine that is fitted with a closed loop conveyor belt or similar piece of equipment, where great precision in the intermittent forward feed step is required, especially when the belt is of a considerable length, 80 metres or more. The device is especially applicable to automatic silk-screen printing machines, for which it has been constructed for the first time. The invention consists of a rotating incremental type encoder transducer (17 or 37) which is used to determine and encode the forward feed step (Sr) of the conveyor belt (2) and the encoder is inserted in a form of drive belt structure consisting of two gear wheels (14,15,16) or (24,25) around which a drive belt (13 or 23) with teeth on both sides passes. The drive belt is of the type currently normally used on industrial robots and plotters, and its teeth engage with a second toothed belt (11) which is attached to one of the sides of the conveyor belt on the machine, or with one of the side strips which make the belt more rigid and which has teeth (21) applied to its upper surface so as to form a flexible rack. <IMAGE>

IPC 1-7

**B41F 15/10**; **B41F 13/04**

IPC 8 full level

**B41F 13/04** (2006.01); **B41F 15/10** (2006.01)

CPC (source: EP)

**B41F 13/04** (2013.01); **B41F 15/10** (2013.01)

Cited by

CN102114728A; EP1095257A4; EP1233209A1; EP0736379A3; US6705962B2; US9243682B2; WO2014052353A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI SE

DOCDB simple family (publication)

**EP 0446977 A1 19910918**; **EP 0446977 B1 19940706**; AT E108131 T1 19940715; DE 69102721 D1 19940811; IT 1241064 B 19931229; IT 9019501 A0 19900227; IT 9019501 A1 19910827

DOCDB simple family (application)

**EP 91200351 A 19910219**; AT 91200351 T 19910219; DE 69102721 T 19910219; IT 1950190 A 19900227