Title (en)
Device for adjusting tension applied to web

Title (de)
Vorrichtung zur Spannungsregelung einer Bahn

Title (fr)
Dispositif pour ajuster la tension appliquée à une bande

Publication
EP 0903311 B1 20030108 (EN)

Application
EP 98117653 A 19980917

Priority
- JP 25489197 A 19970919
- JP 25717597 A 19970922

Abstract (en)
[origin: EP0903311A1] It is desired to prevent disalignment of the edges of a folded sheet (S) by smoothly feeding the sheet while keeping tension fluctuactions to a minimum when the sheet is unwound from a paper roll (R) set in a paper feed unit to a packaging unit even though,the paper roll diameter (dmax, do) decreases gradually as the sheet is unwound. A sheet length measuring sensor (31) or rotary encoder is provided in the paper feed path through which the packaging sheet unwound from the paper roll is fed toward the packaging unit. An angle sensor is provided which comprises Hall element sensors provide on a support shaft (1) and magnets provided on a core pipe of the paper roll. Any change is the signals from one of these sensors relative to the signal from the other sensor is used to calculate the paper roll winding length, and the sheet tension is adjusted to an optimum, constant level by controlling the sheet braking force stepwise according to the roll diameter measured by the sensors. <IMAGE>

IPC 1-7
B65H 23/06; B65H 26/02

IPC 8 full level
B65H 16/02 (2006.01); **B65H 23/06** (2006.01); **B65H 26/02** (2006.01)

CPC (source: EP)
B65H 16/005 (2013.01); **B65H 16/04** (2013.01); **B65H 23/063** (2013.01); **B65H 26/02** (2013.01); B65H 2511/11 (2013.01); B65H 2511/16 (2013.01); B65H 2553/51 (2013.01)

Cited by
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Designated contracting state (EPC)
BE DE DK ES FR GB GR IE IT NL PT

DOCDB simple family (publication)
EP 0903311 A1 19990324; **EP 0903311 B1 20030108**; CA 2246982 A1 19990319; CA 2246982 C 20071113; CN 100513283 C 20090715; CN 1200864 C 20050511; CN 1221700 A 19990707; CN 1526629 A 20040908; DE 69810556 D1 20030213; DE 69810556 T2 20030515; DK 0903311 T3 20030422; ES 2189058 T3 20030701; PT 903311 E 20030430; TW 494081 B 20020711

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