

Title (en)
Calender

Title (de)
Kalander

Title (fr)
Calandre

Publication
EP 1176252 A1 20020130 (DE)

Application
EP 01115554 A 20010628

Priority
DE 20012878 U 20000726

Abstract (en)

The lower roller in a calender assembly can be lowered by a cylinder (6) which has a controlled outflow path over more than one quarter of the piston stroke required to lower the bottom roller. Preferred Features: The outflow path is controlled by the movement of the piston (38) in relation to the cylinder housing (39). The outflow path resistance increases as the piston (38) is moved into the cylinder housing (39). A tube (44) is within the cylinder housing (39), with openings (49) in a wall, extending into a drilling (43) in the piston (38). The tube (44) extends in the piston (38) over the whole piston stroke length (H). A seal (47) is between the piston (38) and tube (44). The tube (44) is open at one end side, and is centered in the cylinder housing (39) and to the piston (38). The openings (44) are evenly distributed over the tube (44) length, or their spread follows a given non-linear and quadratic function, where their outflow cross section decreases over-proportionally to the end of the stroke movement. The bottom roller in the calender is under at least two center rollers and an upper roller. The center rollers are supported by cylinders at the calender pillars, with a controlled outflow path over more than 3/4 of the piston stroke required to lower the center rollers. The outflow path is linked to a control which prevents a pressure drop in the cylinder housing (39) and which increases the pressure in the cylinder (39) when the piston (38) is moved in. The cylinders for the separate center rollers have different resistances at their outflow paths when the nips are closed, with the resistance increasing from the bottom upwards. The cylinders are identical but, with closed nips, their pistons are extended at different lengths. At least one cylinder (6) has a tube (44) which can have at least one longitudinal opening, with a variable width along the tube line or a number of longitudinal openings which are parallel to the tube (44) axis and with variable axial lengths. The outer side of the tube (44) within the cylinder housing (39) has a structure of openings with variable cross section surfaces over the axial length. A seal (47) slides axially on the tube (44) and the openings form an adjustable throttle. At least one opening has a variable width and/or depth axially, or they are axially parallel in different lengths.

Abstract (de)

Es wird ein Kalander angegeben mit einem Ständer (2), einer Unterwalze (5) und mindestens einer darüber angeordneten Walze (7 bis 10), wobei die Unterwalze (5) über einen Zylinder (6) absenkbar ist. Bei einem derartigen Kalander möchte man das Schnelltrennen verbessern können. Hierzu weist der Zylinder (6) einen über mehr als ein Viertel des zum Absenken der Unterwalze (5) benötigten Kolbenhubes gesteuerten Ausströmpfad auf.
<IMAGE>

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IPC 8 full level
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CPC (source: EP)
D21G 1/00 (2013.01); **D21G 1/002** (2013.01)

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• [DA] DE 3702245 A1 19880804 - KLEINWEFERS GMBH [DE]
• [A] DE 2845055 A1 19800417 - KLEINWEFERS GMBH

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