

## Title (en)

COMMAND AND CONTROL APPARATUS TO CONTROL AND COMMAND OPERATING UNITS OF A PACKING MACHINE AND CORRESPONDING METHOD

## Title (de)

BEFEHLS- UND STEUERUNGSVORRICHTUNG ZUR STEUERUNG UND ANWEISUNG VON BETRIEBSEINHEITEN EINER VERPACKUNGSMASCHINE UND ENTSPRECHENDES VERFAHREN

## Title (fr)

APPAREIL DE COMMANDE ET DE CONTRÔLE POUR CONTRÔLER ET COMMANDER DES UNITÉS OPÉRATIVES D'UNE MACHINE DE CONDITIONNEMENT ET PROCÉDÉ CORRESPONDANT

## Publication

**EP 2668104 A1 20131204 (EN)**

## Application

**EP 12710114 A 20120123**

## Priority

- IT MI20110092 A 20110126
- IB 2012000085 W 20120123

## Abstract (en)

[origin: WO2012101493A1] Apparatus to control operating units of a packing machine (1) suitable to complete organized groups of smoking articles with the required accessories, comprising a central wrapping wheel (13), to complete at least one organized group of smoking articles with a collar (6) and at least a second external wrapping sheet (8), the wrapping wheel (13) comprising peripheral reception drawers (14) and at least one or more of the following operating units (22, 25, 26, 27, 34, 37): movement means (9), positioning means (25), transfer means (22), transfer means (27) of the wheel type or linear, wheel type final packaging and wrapping means (34). Said command and control apparatus comprises step-wise servomotors (71) each provided with a position transducer and governed by a central command and control unit (100) of the programmable type and comprising programmable data and times base means (101) which contain information relating at least to one or more work cycles to be carried out, said wrapping wheel (13) being associated for the purposes of the control and command in a bidirectional and independent manner with the step-wise servomotor (71) of each operating unit (22, 25, 26, 27, 34, 37) governed by the central unit (100), the central unit (100) being configured to determine, for each pair (A, B; A, B I; A, B2; A, B3; A, B4) of step-wise servomotors (71) associated with the wrapping wheel (13) and the operating units (22, 25, 26, 27, 34, 37), a univocal and bidirectional dialog, said univocal and bidirectional dialog being assisted by the central unit (100) and involving the position transducer of both step-wise servomotors (71) involved, said univocal and bidirectional dialog serving, through the central unit (100), every other pair (A, B; A, B I; A, B2; A, B3; A, B4) generated between the wrapping wheel (13) and the operating units (22, 25, 26, 27, 34, 37).

## IPC 8 full level

**B65B 19/22** (2006.01); **B65B 57/12** (2006.01)

## CPC (source: EP)

**B65B 19/223** (2013.01); **B65B 19/228** (2013.01); **B65B 19/28** (2013.01); **B65B 57/12** (2013.01); **B65B 2220/16** (2013.01)

## Citation (search report)

See references of WO 2012101493A1

## Citation (third parties)

Third party :

- WO 2004097538 A1 20041111 - FOCKE & CO [DE], et al
- DE 19735942 A1 19990304 - ELAU ELEKTRONIK AUTOMATIONS AG [DE]
- DE 3615442 A1 19861113 - FUJI MACHINERY CO [JP]
- DE 10312379 A1 20031016 - HEIDELBERGER DRUCKMASCH AG [DE]
- US 5458075 A 19951017 - TICE WILLIAM A [US], et al
- "SERVOMOTOR", WIKIPEDIA, DIE FREIE ENZYKLOPÄDIE, 9 September 2014 (2014-09-09), pages 1 - 2, XP003035822, Retrieved from the Internet <URL:HTTPS://DE.WIKIPEDIA.ORG/WIKI/SERVOMOTOR>
- ARC ADVISORY GROUP: "PAVING THE WAY FOR GENERATION 3 PACKAGING MACHINERY", ARC BRIEF, 2002, pages 1 - 7, XP003035823

## Cited by

DE102018127823A1; EP4215626A1

## Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

## DOCDB simple family (publication)

**WO 2012101493 A1 20120802**; CN 103596845 A 20140219; CN 103596845 B 20150708; EP 2668104 A1 20131204; EP 2668104 B1 20170405; IN 1546MUN2013 A 20150612; IT 1403907 B1 20131108; IT MI20110092 A1 20120727; PL 2668104 T3 20171031; RU 2013138623 A 20150310; RU 2587052 C2 20160610

## DOCDB simple family (application)

**IB 2012000085 W 20120123**; CN 201280011702 A 20120123; EP 12710114 A 20120123; IN 1546MUN2013 A 20130813; IT MI20110092 A 20110126; PL 12710114 T 20120123; RU 2013138623 A 20120123